

PART VII

GUIDELINE SOLICITATION PACKAGE FOR DEH FUNCTIONAL SERVICES

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NOTE TO WRITER:

a. This part describes various options which may be used IAW the Federal Acquisition Regulation (FAR) and the DOD, Army, and MACOM FAR supplements to help document complete acquisition packages for contracting out Commercial Activities (CA) functions.

b. This part is formatted IAW the Uniform Contract Format (UCF) prescribed by the FAR to help DEH PWS writers and Contracting Officers assemble complete acquisition packages.

c. Contract sections indicated by an asterisk (*) require information not contained in a PWS as described in Part II of the supplement to OMB Circular A-76. The Director, Engineering and Housing (DEH) (or writer) should provide supplementary information for these UCF Sections at the same time as providing the PWS for solicitation purposes to the Contracting Officer. Where reference is made only to the FAR, the writer (or other users) should review the DOD, Army or MACOM FAR supplements to determine additional internal information, if any, pertaining to the subject matter.

d. The humankind pronoun he and other gender-specific terminology used throughout this guide are applied in the general sense of mankind and are intended to include both male and females.

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PART VII

SECTION A

SOLICITATION/CONTRACT FORM

1. Information: The first page of a solicitation for any Service Contract is prepared by the installation Contracting Officer. Standard Form (SF) 33 is normally the first page of the solicitation.

2. Instructions: The PWS writer is not required to prepare this section of the solicitation.

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SECTION B

SUPPLIES OR SERVICES AND PRICE

1. Information: This section is prepared by the DEH Performance Work Statement writer. The section contains a brief description of the supplies or service; e.g. item number, national stock number or part number. If applicable, the title or name identifying the supplies or services and quantities are also entered in this section. Optional Form 336 (OF 336) may be used.

NOTE TO WRITER: See Part 10, Specification, Standards, and other Product Descriptions of the FAR for more detailed instructions.

2. Instructions: (Ref. FAR Parts 53 "Forms," and 42, "Contract Administration," DFARS Parts 253 and 242, and AFARS Part 53)

a. SECTION B - Supplies or Services and Prices/ Costs of a contract is usually referred to as the "Bid Schedule." This schedule is used to establish contract prices and as a basis for establishing reductions to payments for a Contractor's failure to perform. Prices/Costs for a service are extremely difficult to break out. A service may have only a few or many separate tasks which must be performed in order to accomplish the required service. Due to such difficulty, service contract solicitations normally require only a bottom-line price to be provided. This is the price used in cost comparisons. In a formally advertised Invitation for Bid (IFB), unless a specific breakout of components of the requirement is specified, a potential Contractor is required to submit only a bottom line price, if the bottom-line price includes the provision of all requirements as specified. When breakout of costs is required for contract administration purposes, the writer should provide the Contracting Officer a recommended method for such breakout, limited to the minimum needs. The DEH PWS writer should recommend a schedule that breaks out costs to the extent necessary to determine how reductions are to be made. If the DEH uses standard contract forms to submit a recommended schedule, the DEH should use the numbering system described in DFARS Subpart 204.71. If not used, a system that indicates line and subline is adequate

as the contract office will transfer the information to standard forms.

b. The Contracting Officer is responsible for the pricing arrangement. For RPMA functions, success will depend heavily upon the DEH requirements and technical people. The DEH must be prepared to give the Contracting Officer prompt and complete support, including assistance in price negotiation (see SECTION H and L for additional statements).

c. For any service contract, the writer should include the following bid schedule information:

(1) A brief description of the service(s) being acquired;

(2) Any provision for extent of quantity of work variations;

(3) If DD Form 1423 (Contract Data Requirements List) is desired for obtaining subline data, one (1) or more line or subline items of data in SECTION B should be referenced. Information normally contained in SECTIONS C, D, E and F relating to specific line items may also be referenced or included in SECTION B with the appropriate item.

d. If current service contracts are to be included in the PWS upon expiration, insure that the units column reflects the correct number of months service is to be provided. Seasonal services such as grass cutting should not be spread. Such items should be broken out in the units column for payment only during periods of performance. This will preclude possible problems of recouping funds for work not performed due to contract termination or similar reasons.

e. Estimated requirements (nonrecurring work ordered only as needed) must be determined as accurately as possible and set forth in the bid schedule. The (unit) or (hourly) rate should include all overhead and profit. Requirements may be priced on unit rates (e.g., cubic feet, square feet, square yards or acres, etc.) dependent upon the services required or hourly rates as a last resort. The installation should determine the best method to meet its need. The Contracting Officer will, in most instances, include standard clauses concerning limitations on

ordering and possible adjustments for contract prices based upon percentages of increase or decrease from estimated quantities, etc.

f. Potential Contractors must be furnished with or informed of where historical data may be reviewed and copied if desired. The data may be provided in SECTION B, or provided as an attachment. If lengthy, it is suggested that an attachment be used and that it be listed in SECTION J. Historical information is public information that should be provided to all potential offerors to aid the offerors, including Government, in preparing their offers. The historical information should cover a three (3) year period if available. It is recommended that a PWS show nonrecurring workloads by category or function. Offerors should be cautioned that historical information is provided as an aid for offer preparation purposes only and may not reflect true costs that the Contractor will encounter. Failure to caution Contractors can lead to claims against the Government. Do not fail to incorporate a caution where appropriate.

g. The work level definitions contained in SECTION H, paragraph 2b and Contractor responsibility clauses's (SECTION H) should not be identified to either the Davis/Bacon or Service Contract Acts. The work levels were developed only to show a clear, concise and unambiguous method to separate responsibility for costs for performance of work (equitable risk) and to insure that the successful Contractor cannot pick or choose work.

h. Identify all facilities and equipment that will be operated and maintained, etc., under the contract. Include known projected changes. Specify frequencies where applicable. Define, to include any limitations, work authorization documents IAW installation procedures/needs. Nonrecurring work may be projected as a percentage factor against total contract price. Contractors should project their own time (hours) to perform recurring operations and maintenance requirements except for those hours or units, that are estimated in the indefinite delivery portion of a contract. Information that has been widely distributed without protection normally should not be withheld. Any information identified as potential exempt should be marked "FOR OFFICIAL USE ONLY."

i. Contractors should be cautioned that reimbursable work history should not influence a Contractor's prices as such work might not develop or may not be awarded to the Contractor.

SECTION C

DESCRIPTION/SPECIFICATIONS

1. Information: The writer should include a sufficient description (including any necessary specifications) of the services to be furnished in SECTION C. (Ref. FAR Subpart 14.2, DFARS 214.2, and AFARS 14.2, as applicable).

a. Reference to applicable Federal or military specifications or commercial specifications or standards must include identification of all amendments or revisions applicable to the acquisition and date of both the specifications and any revisions. Care must be taken when such specification contain alternatives which may not meet your need. Federal or military specification should not be used if commercial standards or performance-oriented statements and standards will meet the need.

b. See FAR 10.001 and DFARS 210.001 and 210.004 (b)(3)(i)(B) for guidance on how to develop statements pertaining to "brand-name description" items.

c. Do not include Contractor experience, legal or administrative contract clauses or solicitation provisions in the description/specifications work statements (the technical portion) of the package. Experience relates to a Contractor's responsibility, and not to a Contractor's qualifications or his employee's qualifications. Definitions of "Contracting Officer" and "Contractor" in Uniform Contract Clauses include their representatives working within specific limitations. For contract purposes, the use of Contracting Officer Representative (COR), Quality Assurance Evaluator (QAE), project manager, etc., should be used only where absolutely necessary (i.e., use Contracting Officer or Contractor instead) in technical statements. Administrative documents "outside" the contract, e.g., contract administration plan, letters of designation, etc., should reflect the applicable COR, QAE, etc, terms. Also use "the contract" or "contract" rather than "this PWS" or "these specification" as a contract will not exist until it is awarded by the Contracting Officer. State your requirements once. A repetitive statement of requirements leads to ambiguity and must be avoided. If appropriate, cross-reference rather than repeat information.

d. PWS writers are urged to use extreme care when using the words "clause" or "provision" as IAW the definitions a "provision" applies only to a solicitation and

only prior to contract award. (Ref. FAR 52.101, DFARS 252.101, and AFARS 52.101)

e. Historic Preservation Responsibilities:

(1) Under AR 420-40, Historic Preservation, each installation is responsible for meeting the requirements of the National Historic Preservation act of 1966, as amended. These requirements include:

(a) Locating and identifying buildings, structures, objects, districts, and sites (including archeological sites) that meet the criteria of the National Register.

(b) Places that meet the criteria of the National Register should be forwarded through the appropriate State Historic Preservation Officer (SHPO) to the National Register of Historic Places in the National Park Service, Department of Interior (DOI).

(c) All places that are nominated or that meet the criteria of the National Register and that are included in any undertaking, permitting, or licensing by the installation or other agency of the Department of the Army or Federal Government must be reviewed in order to determine if the undertaking will have an effect on the historic place.

(d) The review of effects on places that meet the criteria of the National Register must be undertaken in consultation with the appropriate State Historic Preservation Officer and, if there is an effect, with the Advisory Council on Historic Preservation.

(e) Projects may not proceed until the comments of the SHPO and, if required, the Advisory Council are received and taken into consideration.

(2) The installation is also required to prepare a historic preservation plan if there are any historic places on the installation. Therefore, the DEH should schedule some work each year to accomplish a plan and for plan implementation. Such work may include an overview of previously contracted reports or other information available about historic places on or near the installation. From this overview, the installation should be able to determine if there are any historic resources on the installation. If there seem to be none, the installation should request the State Historic Preservation Officer's concurrence and then no further work is required under that mission. If the

overview indicates that there are or are likely to be historic places, then the installation should schedule some surveys, such as:

- (a) Inventory of the historic buildings.
- (b) A sampling survey (about 10-15 percent) for archeological resources.
- (c) Additional archeological surveys (including field work and analysis) to determine the type, location (geographical distribution), date, etc. of surface sites or others that may be affected by the installation's mission.
- (d) A predictive model of site locations and site types.
- (e) Analysis of archeological sites to determine significance.

(3) The overview may provide sufficient information for the installation to prepare the historic preservation plan. This plan should be a strategy for completing the historic preservation requirements under the National Historic Preservation Act of 1966, and the provisions of the Archaeological Resources Protection Act of 1979 as it applies to the installation.

(4) Special studies may be required of particular types or areas of historic places in conjunction with a mission requirement. For example, construction projects, building alterations, changes to maneuver area uses, etc., may require a historic preservation study in conjunction with the EIS or DEIS in order to complete compliance with the National Historic Preservation Act, Section 106, or the existing installation historic preservation plan.

(5) The installation is required under the Archaeological Resources Protection Act of 1979 to inform all personnel and visitors about the federal law making the investigation of archeological sites on federal land without a permit illegal and subject to fine and/or jail sentence.

(6) The installation is required under the Archaeological Resources Protection Act of 1979 to ensure that any person, other than the responsible action officer or Contractor who meets the appropriate qualifications, wishing to investigate archeological sites on the installation must secure an ARPA Permit from the appropriate Corps of Engineers District Office.

(7) Normally, installations contract for historic preservation and archeological services through their Corps of Engineers District or, occasionally, through the National Park

Service. There are numerous firms, both small and large, that specialize in historic preservation activities.

(8) Contractors on installations should be advised that all activities that may have an effect on historic places must be reviewed IAW an approved Historic Preservation Plan (see AR 420-40, 2-6) or with the National Historic Preservation Act, Section 106.

(9) Contractors on installations should be advised that any investigation of archeological sites requires the investigator to meet the qualifications under the Archaeological Resources Protection Act or to obtain an ARPA Permit.

(10) Any subsurface disturbance in any area that is likely to contain archeological material must be considered an undertaking and reviewed IAW AR 420-40 and the NHPA '66.

(11) Any repair, alteration, and some maintenance may have the potential or will have an effect on historic buildings and structures. All such contracts should include provision for review of the effect of the specific project on the historic place, IAW AR 420-40 and NHPA '66, Section 106.

(12) Installations that have historic buildings, cantonments, and archeological sites should be sure that contracts contain appropriate language regarding compliance with above laws, regulations, and requirements.

2. Instructions:

a. General: By definition the Performance Work Statement (PWS) is a performance-oriented technical description of tasks to be accomplished within specified time limits and acceptable levels of quality. The technical description of work must be sufficiently accurate to accommodate preparation of competitive bids or proposals for complete and satisfactory accomplishment of the necessary work.

b. Purpose:

(1) The PWS describes only that work necessary for functional accomplishment and provides the description of tasks common to the work necessary for functional accomplishment.

(2) The PWS insures work is accomplished to acceptable standards and that the mission is accomplished.

c. Writing the PWS: Once Job Analysis has identified tasks to be performed in sufficient detail to support the contract selected, writing the actual PWS is relatively easy. What remains is to use a format and use words which express the requirement in clear, simple, and unambiguous terms. Standard

terms and statements should be used if available. (See SECTION C.5 for examples.)

(1) The Uniform Contract Format (UCF) is usually used with the PWS. The PWS format consists of the following described parts which will normally be SECTION C of a solicitation and any resulting contract.

C.1 SCOPE - Provides a broad overview of the work requirements, personnel related matters and, most importantly, contains a part that states clearly the Contractor's specific responsibility for quality control.

C.2 DEFINITIONS - Includes all special and technical terms and phrases used in the PWS. These definitions must clearly establish what is meant so that disinterested parties will fully understand them.

C.3 GOVERNMENT-FURNISHED PROPERTY AND SERVICES - Describes accurately what will be provided. If lists are lengthy, make this a technical exhibit or attachment included at the end of the PWS.

C.4 CONTRACTOR-FURNISHED ITEMS - Accurately describe all items the Contractor must provide. Use a technical exhibit or attachment as with Government-Furnished items if appropriate.

C.5 SPECIFIC TASKS - The heart of the PWS. All major tasks identified by Job Analysis for inclusion in the PWS appears here.

(a) Group according to function and task identified by Job Analysis.

(b) At the same time, group performance indicators, standards, and acceptable quality levels by tasks are identified in accomplishing each function. This grouping is used to develop the Performance Requirements Summary Table(s).

C.6 APPLICABLE DOCUMENTS - List Technical Orders, Specification, Regulation, and Manuals, to include any changes, that are applicable, their dates, what happens if they change and state whether they are mandatory or advisory to the Contractor. Reference chapter and verse applicable to contract if the total regulation, etc., is not applicable.

C.7 TECHNICAL EXHIBITS - Identify and list items too bulky to include in the PWS or information helpful to the Contractor and state where located for Contractor review if not provided along with the solicitation.

(2) Composition: The PWS must define and express each requirement so that contractual requirements are met without Contractor advantage or Government disadvantage and include the following considerations:

(a) Style - Include all essential information in its simplest presentation.

(b) Language - It must be clear, exact, concise, and unambiguous.

(c) Ambiguity - Terms that are indefinite, have double meaning or which otherwise lend themselves to multiple interpretations must be avoided. The following are examples of ambiguous words and phrases:

To the satisfaction of the Contracting Officer
As determined by the Contracting Officer.
As directed by the Contracting Officer.
All reasonable requests of the Contracting Officer shall be complied with.
Good workmanship.
Good working order.
Installed in a neat and workmanlike manner.
Workmanship shall be of the highest quality.
In accordance with best commercial practice.
In accordance with best engineering practice.
In accordance with applicable published specifications.
Skillfully fitted.
Securely mounted.
Properly assembled.
Carefully performed.
Good materials.
High quality.
Suitably housed.
Neatly finished.
Practically free.
Smooth surfaces.
Pleasing lines.
Convenient to operate.
Within easy reach of the operator.
Where practical.
Suitably finished.
Excessive use.
Reasonably clear.
Undesirable odor.
Major construction
Minor construction
Minimally
Maximum
Any word, or series of words, which can be interpreted in more than one way.

(d) Misused Words and Phrases - Intended meaning is often changed through misuse of words and phrases (e.g., the word "shall" specifies a binding provision. "Will" expresses action on the part of the Government).

(e) Spelling - Use standard spelling of words.

(f) Punctuation - Use simple, short, and concise sentences keeping punctuation to a minimum.

(g) Abbreviations - Use only after showing in parenthesis immediately after first use of spelled out word or phrase abbreviated.

(h) Sentences - Clarity is the overriding requirement for sentences.

(i) Paragraphs - States a simple idea and elaborates on it.

(3) Data submissions: Requirements placed on the Contractor for submission of data, forms, and reports should be included as an exhibit or attachment which consists of items listed on DD Form 1423, Contract Data Requirements List, or other form. Data items are described on DD Form 1664, Data Item Description, or other forms, are also part of the exhibit or attachment.

(4) Work Load Data and MEO Audit: The installation must establish an audit trail for work load. Following are methods to establish a trail that will generally be acceptable.

(a) Develop a complete and correct inventory listing of all facilities and equipment to be operated and maintained. The listing must show numbers, sizes, age, condition, and other information that will effect costs to operate and maintain these. Incorporate into the PWS.

(b) Develop a good preventive maintenance (PM) program as required by DODI 4165-64, 23 May 1985. The PM program must establish frequencies of inspection and PM operations. Incorporate into the PWS.

NOTE TO WRITER: The Government must develop a list of all recurring maintenance requirement (see DODI 4165-64, 23 May 1985). The list must include the following.

Description of work to be accomplished.

Frequency for accomplishing the work.

Location of work.

Any special requirements related to the work.

3. Performance Work Statement Outline: The following outline is provided to assist the PWS writer in developing a suitable service contract acquisition package. The paragraphs may be modified to meet local climatic, regulatory or command directives as they pertain to your installation.

C.1 SCOPE OF WORK:

NOTE TO WRITER: The workload for the inspection, operation, maintenance, repair, or construction of RPMA facilities should use as many of the following characteristics as necessary to express the Government's minimum needs (see FAR 10.004 and DFARS 210.004 for additional information).

- (1) Common nomenclature
- (2) Kinds of material - i.e., type, grade, alternatives, etc.
- (3) Electrical data
- (4) Dimensions, size, capacity, numbers, etc.
- (5) Essential operating conditions
- (6) Other potential information that further describes the services required.

a. The Contractor shall provide all services, materials, supplies, plant, supervision, labor, and equipment, except when specified as Government furnished, to operate, maintain, repair, and construct RPMA facilities and shall provide related services as specified, in strict accordance with all terms, conditions, special contract requirements, specifications, drawings, attachments, and exhibits contained in the contract or incorporated by reference.

b. The Contractor's work and responsibility shall include all Contractor planning, programming, administration, and management necessary to provide all operation, maintenance, repair, minor construction, and related services as specified. The work shall be conducted in strict accordance with the contract and all applicable Federal, State, and local laws, regulations, codes, or directives (specify where found). The Contractor shall ensure that all work provided meets or exceeds critical reliability rates or tolerances specified or included in applicable referenced documents. The Contractor shall perform all related Contractor administration services necessary to perform the work such as supply, quality control, job order shop operation, financial control, and maintenance of accurate and complete records files, libraries of documents to include Federal, State, and local regulations, codes, laws, TMs, manufacturer's instructions and recommendations (specify where found) which are necessary and related to the functions being performed. The Contractor shall provide related services such as preparing and providing required

reports, compiling historical data, performing administrative work, and submitting necessary information as specified.

c. *The Contractor shall implement a comprehensive Preventive Maintenance (PM) program for all applicable real property facilities. The program shall include all scheduled work necessary to preserve and maintain the real property facilities in such condition that they may be effectively used for its designated functional purpose. The work shall be based on manufacturer's recommendations, referenced technical manuals, applicable regulations, and as further described herein. Detailed schedules shall be developed by contractor IAW C.6.3 below.*

C.1.1 Background Information:

C.1.2 Location (or Locations):

C.1.3 Climatic Conditions:

C.1.4 Director, Engineering and Housing (DEH): (Insert any desired information pertaining to DEH functions.)

C.1.5 Installation History and Mission Statement: (Insert applicable historical information.)

NOTE TO WRITER: Contractors tend to provide better services if adequate history and background are provided. It is suggested, however, that the information be limited to not more than two (2) pages. Each DEH must develop its own data based upon its own historical background and mission.

C.1.6 Facilities Descriptions: (Ref. DA Pamphlet 420-8 and the installation Resources Management Plan. Insert necessary descriptions.)

C.1.7 Functional Areas Covered Under the Contract: The following is based on functions to be contracted, expand to include all major facilities. The letter and numbers in parentheses identify functional paragraph numbers.

- a. J513 - Dining Facility Equipment [(Installed) (Food Service Equipment Maintenance and Repair) (C.7.1.)]
- b. S709 - Custodial Services (C.7.2)
- c. S710 - Insect and Rodent Control (Pest Control) (C.7.3)
- d. S712 - Refuse Collection and Disposal (C.7.4)
- e. S718 - Fire Prevention and Protection (C.7.5)

f. S725 - Electrical Plants and Systems (includes Alarm Systems) (C.7.6)

g. S726 - Heating Plants and Systems (C.7.7) including gas/fuel lines and systems

h. S727 - Water Plants and Systems (C.7.8)

i. S728 - Sewage Plants and Systems (C.7.9)

j. S729 - Air Conditioning and Refrigeration Plants (C.7.10)

k. Z991&2 - Buildings and Structures (includes Family Housing) (C.7.11)

l. Z993A&B - Grounds (Improved and Unimproved) (C.7.12)

m. Z993C - Surfaced Areas (C.7.13)

n. Z997 - Railroad Facilities (C.7.14)

o. S730 - Housing Operations (C.7.15)

p. S730, Z999 - Other Installation Services (Reserved to Installation)

NOTE TO WRITER: See AR 5-20 for additional functions which may be considered for contracting out. Add or delete functions as necessary to meet installation objectives and minimum needs. Refuse collection and disposal, snow removal and firefighting services may be subject to regulation by local government (county, city, town, etc.), in which case such local government might provide a bid if these services are broken out from the other services. The installation must consider all alternatives available during the CA review to include bids from other Federal agencies. The installation should determine and include applicable miscellaneous services. The installation must develop performance-oriented descriptions of the work, applicable acceptance standards, and performance requirements summaries. For miscellaneous items use AR 37-100-xx as a guide. The following is a partial list from the AR.

- (1) *Engineering and Technical Services*
- (2) *Forestry and Wildlife*
- (3) *Environmental/Energy (includes Energy Control Systems)*

(4) *Self-Help Supply Store/Repair of Government-owned Equipment, such as vacuum cleaners, fans, washers, driers, etc. (see AR 420-43)*

(5) *Packing and Crating*

(6) *Rigging*

(7) *Incinerators*

(8) *Harbor and Dock Facilities*

(9) *Hospital Special Manning Requirements*

(10) *TV Cables and Facilities*

(11) *Solar Systems (includes Management)*

(12) *Swimming Pools (Operation, Maintenance, Water Supply, Purification, etc.)*

(13) *Portable Latrines*

(14) *Septic Tanks*

(15) *Grease Traps*

(16) *Grave Excavating and Fill (see C.7.12.2.19)*

(17) *Support to Activities (e.g., Crane Support, Water Tanks, etc.)*

(18) *Mapping and Charting*

(19) *Automotive Maintenance*

(20) *RPMA Supply*

C.2 Definitions: As used throughout the contract, the following terms shall have the meaning set forth below:

NOTE TO WRITER: *Delete any definitions or acronyms that are not used in the installation PWS. Additional definitions pertinent to the functional areas are contained in the functional specifications herein and must be consolidated in some instances. The PWS writer should incorporate all definitions in one paragraph or attachment. Acronyms should also be defined. AR 310-50, "Authorized Abbreviations and Brevity Codes," (etc.) may be referenced. Referenced documents containing applicable definitions must be made available to potential bidders if requested. Where only a reference is given, the DEH is expected to develop the definition using the reference as a guide.*

C.2.1 Acceptable Quality Level (AQL): The maximum percent defective (or the maximum number of defects per 100 units) that can be considered as a satisfactory performance average. The Contracting Officer will accept the majority of lots provided that the percent defective (or defects per 100 units) in these lots is no greater than the designated value of AQL. However, the Contractor shall not intentionally perform in a defective manner and shall reperform any service found to be defective whenever possible. Decisions as to possibility of reperformance shall be made only by the Contracting Officer.

C.2.2 Acronyms: Standard abbreviations needed to identify technical items, proper names or

organizations. A list of acronyms follows. The PWS writer should include additional acronyms as applicable.

ACRONYMS

AASHTO American Association of State Highway and Transportation Officials
 ACI American Concrete Institute
 ACO Administrative Contracting Officer
 AFARS Army Federal Acquisition Regulation Supplement
 AI The Asphalt Institute
 ANSI American National Standards Institution
 AQL Acceptable Quality Level
 AREA American Railway Engineering Association
 ARI Air-Conditioning and Refrigeration Institute
 ARD Automatic Release Date
 ASAE American Society of Agriculture Engineers
 ASCE American Society of Civil Engineers
 ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers
 ASL Authorized Stockage List
 ASME American Society of Mechanical Engineers
 ASSE American Society of Sanitary Engineers
 ASTM American Society for Testing and Materials
 AWAA American Water Works Association
 CDR Contract Discrepancy Report
 COR Contracting Officer Representative
 COCO Contractor-Owned, Contractor-Operated
 CONUS Continental United States
 DA Department of the Army
 DEH Directorate, Engineering and Housing
 DFARS Defense Federal Acquisition Regulation Supplement
 DOC Directorate of Contracting
 DOD Department of Defense
 DPI Data Processing Installation
 FAO Finance and Accounting Office(r)
 FESS Facilities Engineering Supply System
 FIA Financial Inventory Accounting
 FOB Free on Board
 FSC Federal Supply Class
 GFE Government-Furnished Equipment
 GFP Government-Furnished Property
 GOCO Government-Owned, Contractor-Operated
 GVW Gross Vehicular Weight
 HQDA Headquarters, Department of the Army
 IAW In Accordance With
 IFDEP Integrated Facilities Data Entry Process
 IFS Integrated Facilities System
 IJO Individual Job Order
 IPD Issue Priority Designator
 JCAH Joint Commission on Accreditation of Hospitals

JOR Job Order Request
 KO Contracting Officer
 LIN Line Item Number
 MACOM Major Army Command
 M&S Maintenance and Service
 MCA Military Construction, Army
 MCAR Military Construction, Army Reserve
 MISO Management Information Systems Office
 NEMA National Electrical Manufacturers Association
 NFPA National Fire Protection Association
 NSN National Stock Number
 OMA Operations and Maintenance, Army
 OMAR Operations and Maintenance, Army Reserve
 OPA Other Procurement Army
 OST Order and Shipping Time
 PDO Property Disposal Office(r)
 POL Petroleum, Oil and Lubricants
 QA Quality Assurance
 QAE Quality Assurance Evaluator
 QASP Quality Assurance Surveillance Plan
 QC Quality Control
 QCP Quality Control Program
 RDD Required Delivery Date
 RDTE Research, Development, Test and Evaluation
 RPMA Real Property Maintenance Activity
 RR Reliability Rate
 SAACONS Standard Army Automated Contracting System
 SAILS Standard Army Intermediate Level Supply System
 SO Service Order
 SOO Standing Operations Order
 SSSS Self-Service Supply Section
 STANFINS Standard Financial Systems
 TB Technical Bulletin
 TDA Table of Distribution and Allowance
 TM Technical Manual
 URR Unconstrained Requirements Report
 USPFO United States Property and Fiscal Officer

NOTE TO WRITER: When words such as adequate, properly, major, minor, minimally and maximum, etc., are used, they must be defined as such wording is subject to interpretation. Words such as "as specified" apply only when the item is in fact specified. After award, a Contractor will protest any work or service falling into categories such as "as required," "as necessary," etc. Be specific and state exactly what the Contractor is to do. Do not state what Government will not do except where absolutely necessary. The use of acronyms can make complex terms easy and precise. However, Contractors not familiar with Government contracts may not understand them. Acro-

nym must be spelled out the first time used, followed by the acronym in parentheses. The above list includes acronyms often used in DEH contract preparation. Open-end phrases such as "include, but not limited to", "as directed by the Contracting Officer" and generalized references to studies, services, or products without specific descriptions being incorporated into the work statements are other examples of such open-end phrases which should be limited in use as such words indicate unknowns which Contractors could not price. Using such wording will cause Contracting Officers to conclude DEH does not actually know what work is required and will normally result in a decision to use a cost plus type contract.

C.2.3 As Is: Means without additional maintenance or repair expense solely for the purpose of transfer to the Contractor.

C.2.4 Breakdown: The stoppage or collapse of equipment of a facility, or a component thereof, that requires immediate corrective action to restore it to an operating condition.

C.2.5 Clean: As used generally, means removal of dirt or impurities. As used for acceptance of work, means gleaming, bright, free from dirt, contamination or impurities, unsoiled, unstained, recently laundered, fresh and unused, neat and tidy, having no flaws or roughness, clear, regular, or having few corrections.

C.2.6 Contract Discrepancy Report (CDR) DA Form 5479-R: A formal, written documentation of Contractor nonconformance or lack of performance for contracted work.

C.2.7 Critical Equipment and Facilities: Equipment or facilities that must operate continuously or throughout the respective season in order to support critical missions. Failure of equipment or facilities in meeting design output requirements may affect the health and welfare of personnel or damage Government equipment or properties. Emergency or urgent service calls are often required to restore critical equipment to optimum operating condition and provide the output required, e.g., computer facilities, 24-hour operations (specify), fire prevention and protection facilities, hospitals, electrical plants/systems, water plants/systems, etc.

C.2.8 Equipment Logbook: A mandatory record of the events occurring during the life cycles of Government equipment made IAW DA Pam 738-750, "The Army Maintenance Management System (TAMMS)." The Contractor shall comply with TAMMS documentation requirements as applicable to each item of Government-furnished equipment (GFE).

C.2.9 Expendable/Nonexpendable:

C.2.9.1 Expendable: Government property that is consumed in use or loses its identity in use and is dropped from stock record accounts when issued. Expendable items include certain repair parts of low intrinsic value or items unworthy of full accounting procedures, e.g., paint, fuel, cleaning and preserving materials, or items which lose their identity (such as spare parts, which are sometimes referred to as "consumable supplies and material").

C.2.9.2 Nonexpendable: Government property or supplies which are not consumed in use and which retain their original identity during the period of use, such as machines and tools.

C.2.10 Facility Replacement: The replacement of an entire facility when replacement is more economical than major repair. This includes installed equipment.

NOTE TO WRITER: Insert definition of an individual job order (IJO) as applicable to contract contemplated.

C.2.11 Installed Building Equipment: (Ref. applicable sections of ARs 405- 45, 420-70, and 735-5 will be used to develop the definition.)

C.2.12 Maintenance: (Ref. AR 420-10 and TM 5-610, para 5, page 5. Except as may be limited by the DEH, definitions contained in AR 420-10 and TM 5-610 will apply to all RPMA operation, maintenance and repair services performed under the contract.)

C.2.12.1 Preventive Maintenance: (Ref. TM 5-610, page 5, para 5 and AR 420- 22) All scheduled preventive maintenance is Work Level I without exception.

C.2.13 Minor Construction: (Ref. AR 415-35, page 1-1, para 1-3c, "Construction.")

NOTE TO WRITER: Minor construction is a part of the DEH mission. The definition of minor construction includes "new work" such as "installation of a new facility....

Construction of a new road, street, or structure and alteration so that facilities may be used for a new functional purpose." New work should normally be accomplished by a new contract. However, new work should also be a part of the cost comparison if such work is accomplished in-house or when determined to be in the best interests of the Government IAW current guidelines (e.g., AR 5-20). Considerations include current and existing acquisition guidelines concerning small business set-aside (including section 8(a)) contracts, which might limit umbrella-type contracts. New guidelines are frequently issued by DOD, DA, and MACOMs. The writer must be alert to changes in acquisition or CA regulations which might affect the specific acquisition package. DA policy is that specifications will be written in a manner that will allow Contractors to classify Contractor's employees under either the Davis Bacon or Service Contract Act in a large RPMA contract.

C.2.14 Noncritical Equipment or Facilities: Those categories of equipment or facilities that do not affect the health of personnel, cause damage to Government properties, or cause critical facilities such as ADP to shut down in case of equipment failure.

C.2.15 Operator Equipment Maintenance: The basic daily services performed by the equipment operator IAW DA PAM 738-750. Includes visual inspection for damage and pilferage, leaks, instrument operation, brakes, transmission (clutch), steering, engine operation, lights, reflectors and other safety devices, and reporting of mechanical deficiencies for correction or repair. Fueling, oil and battery checks, tire inflation, and changing flat tires are operator tasks.

C.2.16 Plant Equipment: Government-furnished property of a capital nature, consisting of equipment, furniture, vehicles, machine tools, test equipment, and accessory or auxiliary items, but excluding special tooling and special test equipment, used or capable of use for administrative or general plant purposes.

NOTE TO WRITER: *For accounting purposes, include under facilities provided to the Contractor in C.4 only that property on DEH property books, to include mobile kitchen equipment; e.g., only that which is DEH responsibility.*

C.2.17 Quality Assurance Surveillance Plan (QASP): A written Government plan that details what is to be evaluated, how evaluations are to be accomplished, frequency of evaluations, evaluation parameters, sampling guides, inspection checklists, and other information that the

Contracting Officer should have in order to provide effective QA.

C.2.18 Quality Control (QC) Program: The Contractor's system of controlling the equipment, systems, or services to insure that requirements of the contract are met. The Contractor is responsible for QC and for offering to the Government for acceptance only those supplies or services conforming to contract requirements.

C.2.19 Random Sampling: A method of selecting a sample from a lot (or population) in such a way that every possible sample has the same probability of being selected.

C.2.20 Reliability Rate (RR): A measure of equipment performance computed by dividing actual operating hours by required operating hours. Operating hours are acceptable only when the desired output is being maintained.

C.2.21 Repair: (Ref. Para 1-3, B(2), AR 420-10.)

C.2.22 Sample: A collection of individual samples from a lot (or population). Ordinarily inferences are to be made from the sample to the lot, and the one must be in some way representative of the other.

C.2.23 Sampling Guide: A part of the QASP which contains information describing how to randomly sample a specified service requirement. It shows the AQL, the lot size, the sample size, the sampling procedure, the inspection procedure, and the performance criteria.

NOTE TO WRITER: *Insert definition of a service order (SO) and Standing Operations Order (SOO) as applicable to the contract contemplated. SO thresholds are flexible within Office, Chief of Engineers (OCE) guidelines.*

C.2.24 System: A system, as used in the contract, includes all mechanical and electrical equipment; supporting structures; pneumatic, electrical, and mechanical types of controls; and all auxiliary equipment required to provide a specific function and output requirements.

C.2.25 Technical Bulletin (TB): A publication containing technical information pertaining to vehicles, equipment, and professional techniques.

C.2.26 Work Levels: The established levels at which any RPMA facility shall be maintained or operated to assure maximum overall economy consistent with its functional requirement and to protect the Government's investment.

For purposes of the contract, the levels are defined as follows:

NOTE TO WRITER: *Where minor construction or repair of real property is predominate or where repair (see "construction" as defined in FAR 36.102, and DFARS 236.102) individual job orders are severable from predominant services, the following levels should be considered. The appropriate parenthetical sentences should be selected depending on how the costs of supplies, materials, and equipment is to be paid, i.e., either reimbursable or included in the fixed-price bid. Equipment costs should be reimbursable when additional specialized equipment (not normally required), is required to perform reimbursable work.*

C.2.26.1 **Work Level I:** This level of work is defined as all service operations and recurring maintenance activities. Included in this level is operation of utility plants, performance of recurring maintenance such as preventative maintenance, grounds maintenance, snow and ice removal, custodial services, trash collection and disposal, startup/shutdown of seasonal system and facilities, and all other periodic or recurring work described in the contract. (All supplies and materials required to execute work required under this level will be reimbursed at source invoice cost.)

C.2.26.2 **Work Level II:** This level of work is established for all nonscheduled repair work required to restore utility equipment or a facility (Real Property) to a condition as required to function in a manner as the equipment or facility was originally functioning or intended to function. The Contractor's responsibility for cost in Work Level II is limited to (specify) work hours and (\$ (specify)) (unlimited) for parts and materials for each individual work order. An individual repair order is defined as a single event, occurrence, or condition that can be repaired as a unit to restore failed or deteriorated condition to an operable or restored condition. Work orders will not be combined to exceed the repair order limits established above. Work required as a result of fire/smoke damage to facilities or catastrophic acts of God are excluded from this level. Any damages that result from negligence of the Contractor shall be the responsibility of, and cost to, the Contractor to repair or replace regardless of cost.

NOTE TO WRITER: *Level II Work. To determine the limits for nonscheduled repair (and maintenance) to be classified as Level II, it is recommended that a profile be made of job history to determine the normal groupings of jobs by hours of labor and material cost. The upper limits should be as high as practical to reduce administrative costs but should avoid adding a high risk to Level II costing. Prudent responsible Contractors are expected to assume equitable risk in fixed-price contracts. Establish limits that are equitable to both the Government and the Contractor.*

C.2.26.3 **Work Level III:** This level of work is established for work required due to acts of God, minor construction and repair of equipment or facilities (see AR 210-50) which exceeds Work Level II. This work will be accomplished by the Contractor only when ordered and accomplished at the unit prices established in the indefinite delivery portion of the bid schedule. The Government reserves the right to have level III work done by other Contractors or means. CAUTION: All work under Level III must be approved, in writing, by the Contracting Officer prior to any performance, except at the Contractor's own risk, and except as specified for emergency work.

NOTE TO WRITER: *(Ref. DA Pam 420-6, chap 4, para 4-2). The information needed to maintain SOO, SO, and IJO documents should be obtained from data submitted by the Contractor. These documents will be maintained by residual in-house forces. It is recommended that Contractor's responsibility and cost be established at a minimum of 40 hours labor and \$2,000 for materials, or at a higher level if needed to make the Contractor responsible for the majority of the established workload in order to reduce administrative costs. The installation should establish an equitable range of risk for both Contractor and Government. A clear, concise separation of responsibility for cost must be established. Contractors must not be allowed to pick or choose work exceeding Level I. Additional levels should be developed, if appropriate, by the installation. These levels should not be confused with SOO, SO, or IJO documents used for work control purposes. The levels should be used only to provide a clear separation of responsibility for costs (i.e., Contractor cost or reimbursable).*

C.2.26.4 **Priorities:** There are three (3) categories of priorities established for service calls for RPMA work:

C.2.26.4.1 **Emergency:** (Ref. DA Pam 420-6, para 4-5(3)(h)1) all emergency reimbursable work will be approved verbally only by the Contracting Officer.

C.2.26.4.2 **Urgent Calls:** (Ref. DA Pam 420-6, page 4-8, para 4- 5(a)(3)(h)2)

C.2.26.4.3 **Routine Calls:** (Ref. DA Pam 420-6, page 4-9, para 4- 5(a)(3)(h)3)

C.3 Government-Furnished Property (GFP):

NOTE TO WRITER:

a. *The policies described in AR 5-20 must be considered when making determinations concerning GFP. It is recommended that the writer read FAR Part 45 and DFARS Part 245 which sets forth DOD policy with respect to providing property for use by Contractors and DFARS Supplement No. 3 which sets forth guidance for DOD personnel engaged in administration of contract clauses relating to Government property in the possession of a Contractor prior to completing this section.*

b. *As a general rule, contract clauses or statements which make Contractor performance dependent on Government performance should be avoided. Policy as stated in FAR 45.102 is that ordinarily Contractors are required to furnish all material required for performance of Government contracts. Supplies and materials should be furnished to a Contractor only when it is in the Government's interest by reason of economy, standardization, the expediting of production, or other appropriate circumstances. IAW this policy, Contractors should normally be required to provide supplies or materials that will be consumed or expended in the performance of an RPMA function. An initial stockage of supplies and materials may be furnished to a Contractor to minimize his immediate capital investment and to reduce existing Government stocks to the level needed for other RPMA functions. The Contractor should be responsible for providing an adequate supply thereafter unless it is in Governments best interest as described in AR 5-20.*

c. *The Government must retain adequate TDA authorized equipment and material to continue to perform residual management functions. This equipment and material must be separate from TDA items that will support the in-house work force.*

d. *The decision to offer or not to offer Government property to a Contractor shall be determined by a cost-benefit analysis justifying that the decision is in the best interest of the Government. The determination on Government property must be supported by current, accurate, complete information and be readily available for the independent reviewing activity. The design of this analysis*

shall not give a decided advantage/disadvantage to either in-house or contract competitors. The management of Government property offered to the Contractor shall also be in compliance with FAR Part 45. (Ref. DoDI 4100.33)

C.3.1 General:

C.3.1.1 The Contractor has the option to reject any or all GFP. However, if use of GFP is rejected, the Contractor shall provide all necessary property, equipment, or items, adequate in quantity and suitable for the intended purpose, to perform all work and provide all services in the established time frames at no additional cost to the Government. The Contractor shall return any GFP not utilized to the maximum in performance of contract work. Such returns will not be refurnished if needed later and shall not be cause for any nonperformance of work or increase in contract price. (Such returns will normally be redistributed elsewhere and would not be available for return to a Contractor.)

C.3.1.2 All GFP will be provided in an operable (or state repair requirements) but "as is" condition and shall be used only in connection with performance under the contract consistent with applicable Federal, Department of Defense, Army, and (State) Environmental Act policies, standards, codes, or directives (specify where found).

NOTE TO WRITER: *It is recommended that all GFP be listed under the applicable heading. However, if the list(s) (is) (are) extensive (an) attachment(s) may be used. Include in the listing any equipment due in, when it can be expected, if it will be turned over to the Contractor for his use, etc.*

C.3.2 Facilities and Utilities: The Government will furnish, without cost to the Contractor, designated space in building (specify). The Contractor shall maintain such building space to the same standards as similar areas occupied by the Government (specify where the standards are found). The Contractor shall not make any alterations to the space except with written permission of the Contracting Officer. Any approved Contractor-requested alterations shall be made at no additional cost to the Government. The Contractor shall restore the space to the condition in which received, at own expense, fair wear and tear excepted, at time of contract completion or termination except as otherwise approved in writing by the Contracting Officer. The Government reserves the right to reassign facilities as required due to changing Government needs.

NOTE TO WRITER: The installation must determine whether to furnish utilities or to charge them to the Contractor, based upon existing or expected conditions and which (is) (are) in the best interests of the Government. Two (2) options are provided below. If option II is used, a utilities contract must be drawn up by the Contracting Officer and attached to the solicitation package. Utilities contracts must be made IAW DFARS Supplement No. 5 and AR 420-41. (See FAR 52.236-14). Address energy conservation incentives and consider inclusion of the Contractor as a participant in the energy council. Require the Contractor to provide a conservation plan for the Contractor area of responsibility. Evaluation of energy awareness should be a payment factor of most functions.

C.3.2.1 Utilities (Option I): The Government will furnish, without charge to the Contractor Class (specify) on-base telephone service. The Contractor shall provide his own local and long-distance telephone service at no additional cost to the Government. (Due to costs to administer and control, provision to furnish long-distance telephone service is not recommended; however, see option II.)

C.3.2.2 Utilities (Option II): The Government will furnish the following utilities. Each utility shall be charged to, or paid by, the Contractor IAW the utilities contract contained herein as attachment (specify). Average utility consumption rates during the last (specify) (years) (months) are as follows: Utility Volume or Usage Average Cost (specify type of utility and estimates of the volume or usage and an average monthly or annual cost).

NOTE TO WRITER: Add or delete utilities as applicable to installation needs. Few installations break out costs of utilities by functions; however, these costs must be estimated as accurately as possible to show historical usage if the Contractor is charged for the utilities. If Option II is used, incorporate necessary instructions in SECTION L for the Contractor to complete, sign, etc., the utilities contract.

C.3.3 Vehicles: The Contractor shall insure that Contractor personnel who operate Government-furnished equipment (GFE) off the installation shall possess a valid State operator's license (and shall obtain a Government operator's license IAW installation regulations when applicable).

C.3.4 Equipment and Tools : The Contractor should furnish; however, if furnished by the Government insert applicable information.

C.3.5 Accountability, Control, and Maintenance: (Ref. applicable Contract Clause(s) from FAR 52.245-1 through 52.245-19)

NOTE TO WRITER: Wording to the effect that a Contractor must accept a Government list if he does not inventory the property, etc., is not recommended. The Contractor must inventory, sign, and agree with the inventory if he is to be held responsible. The Contractor must be required to inventory the property to preclude protest or appeal. However, Contractors who, of their own volition and as a matter of administrative convenience, accept and sign the Government inventory list without making an inventory do so at their own risk. Accountability, control and maintenance specifications should cover all Government-furnished facilities, equipment, parts, supplies, materials, etc.

C.3.5.1 Accountability: An initial inventory of GFP shall be made jointly by the Contractor and the Government on or before the commencement of work. The operational, or condition status, will be jointly determined. Items found not to be in working order, or not suitable for their intended purpose, will be recorded and the Government and the Contractor shall certify as accurate the joint inventory. All inventory listings will utilize DD forms (insert) to record inventory data. (Insert requirements for the Contractor to turn in salvageable materials, fixtures, etc.).

C.3.5.1.1 A joint inventory of Government property shall be conducted by the Contractor and the Government on completion or termination of the contract and as required by FAR 52.245. If the joint inventory discloses that Government property is lost or damaged, except for fair wear and tear, the Contractor shall pay the Government the current market value for any lost or damaged Government property. (Insert information as to how current market value will be calculated.)

C.3.5.1.2 Throughout the contract period, the Contractor shall keep current the inventory listing. The Contractor shall prepare DA forms (cite forms) for adjustments in the account (specify if the Contractor may request and use the Government system of accounting for GFP).

C.3.5.1.3 Equipment operating manuals and suppliers' catalogs currently maintained by the Government will be turned over to the Contractor prior to commencement of work under the contract. An inventory of suppliers' catalogs will not be taken since the catalogs are a disposable item and become obsolete within several years after issue. However, the Contractor shall maintain an up-to-date supplier catalog file of pertinent supplies and components for GFE maintained under the contract. (Specify any requirement for the Contractor to obtain updates of manufacturers' manuals or suppliers' catalogs.)

C.3.5.1.4 Other documents which shall be updated and maintained by the Contractor include:

a. Detailed and current equipment installation layout drawings.

b. Detailed building plans and as-built drawings of all installation facilities.

c. Available manufacturers' literature and applicable mechanical, plumbing and electrical drawings and functional schematic diagrams

d. Standard Government forms as (specify) are required for the fulfillment of the contract. Forms and logs are subject to change periodically. Changes in a form which affect contract cost or price will be subject to the contract clause (SECTION I) entitled "CHANGES."

e. Cite who will be responsible to obtain, replenish, and maintain stock of standard or other forms. Only forms which are mission essential or are performance-oriented should be retained. Where required by regulation, etc., and not deemed essential, the DEH should request a waiver or recommend the forms be discontinued through appropriate Government channels. All forms required for use by the Contractor must be current and accessible to the Contractor.

f. Local decisions must be made concerning Government-furnished supplies/parts/materials. Prior to beginning work under the contract, the Government will furnish to the Contractor a Government prepared inventory of supplies, parts, and materials which are to be used for normal and routine maintenance. A joint inventory will be taken and duplicate copies prepared and agreed to by the Contractor. It is estimated that inventory value is approximately \$(specify) with (specify) line items. The Contractor shall use the Government-furnished supplies, parts, and materials, as needed, but is not required to replace them. The Contractor shall maintain Contractor owned supplies, parts, or materials at levels the Contractor determines necessary to meet the commitments of the contract. At contract completion, or termination, any excess Government-furnished supplies, parts, or materials shall be returned to the Contracting Officer. Excess Contractor-furnished supplies, parts, or materials shall remain Contractor property.

***NOTE TO WRITER:** Include a list of supplies, parts, or material to be furnished by the Government. If extensive, reference here and include the information as an attachment. Government-furnished supplies, parts, or material subsequent to initial inventory should be limited to those specifically designed for Federal or Military applications or specification*

items. Inclusion of this information will preclude confusion and possible dispute. Provide potential Contractors a maintenance history and state any reimbursement for parts. Specify necessary control and maintenance requirements needed to supplement the FAR Property Clauses. (FAR 52.245-1 through 52.245-19)

C.3.5.2 Control: (Insert any control requirements necessary to supplement the Government property clause used.)

C.3.5.3 Maintenance: Parts or supplies, which can only be obtained through Government sources, are cataloged in the Army Master Data File (AMDF) which is provided in microfiche format and updated monthly. Installation of all parts or material shall be the Contractor's responsibility and cost (specify input the Contractor will be required to provide residual force for Standard Army Intermediate Level Supply System).

C.3.6 Services:

C.3.6.1 Orientation: Prior to contract start date, the Government will provide, to the Contractor's key management and supervisory personnel performing under contract, orientation as follows:

***NOTE TO WRITER:** Orientation, or training, will be limited to that necessary to properly explain the work and familiarize the Contractor and his key personnel with the installation facilities, transition requirements, and regulations. The Contractor is responsible for orienting or training his personnel at his own expense and on his own time.*

C.3.6.2 Emergency Medical Service: (Ref. AR 40-3) Medical services for the Contractor's personnel are the responsibility of the Contractor. However, the Government will provide, on an emergency basis, medical services for job-related injuries while an employee is performing under the contract. The Contractor shall reimburse the Government for emergency medical services provided upon receipt of invoice from the medical facility. Medical facilities are located (specify). In addition, the Government may conduct occupational/industrial hygienic surveys, evaluations, and inventories. The Contracting Officer will notify the Contractor of any recommendations or of any evaluation which reveals real or potential health hazards that require protective measures to be implemented. The Contractor should notify the Contracting Officer of any potential health hazards that require attention. (Define emergency services which will be provided and list cost of the services or specify where found. Any known OSHA deficiencies should be provided to potential Contractors.)

C.3.6.3 Parking: The Contractor will be provided parking

space as shown by attachment (specify). The Contracting Officer may designate other spaces, if such spaces are available. (Contractors should be provided spaces in the same manner that Government employees are provided space.)

***NOTE TO WRITER:** (Insert other services, e.g., postal, that the Government will provide: delete items not applicable.) Potential Contractors should be cautioned that facilities provided for Contractor use are subject to change based on changing Government requirements.*

C.4 Contractor-Furnished Property:

C.4.1 Property: All Contractor-furnished equipment, vehicles, supplies, parts, or materials shall meet applicable Federal, Department of Defense, Army, State, and local laws, codes, or regulations (specify where found).

C.4.2 Supplies, Parts, and Materials: Contractor-furnished items found not meeting acceptable standards shall be replaced by the Contractor at the Contractor's expense. All Contractor-furnished parts and materials must be approved by the Contracting Officer prior to incorporation into contract work. (Ref. FAR 52.236-5)

***NOTE TO WRITER:** If the Contractor is to furnish, provide a detailed listing of items to be furnished by nomenclature, size, make, model, etc., and annual usage factors to allow preparation of bid offer.*

C.4.3 Records: The Contractor shall maintain complete and accurate records of all materials and parts used for Level III work. This information shall be recorded on each Level III work order completed. The Contractor shall maintain a copy of all delivery tickets, sales slips, and other documents identifying items purchased under the requirements portion of the contract with individual work or job records. If reimbursable under levels I and II, records must be maintained for these also.

C.4.4 Manufacturers' Manuals: The Contractor shall obtain and maintain manufacturers' operating instructions and maintenance manuals on all new equipment installed by the Contractor. These manuals and operating instructions shall become the property of the Government at the expiration or termination of the contract.

C.4.5 Failures: Contractor-furnished equipment or items, inoperable or unserviceable, for whatever reason, including failure to meet Federal, State, or local safety requirements (specify where found), shall be removed from the installation within (specify) hours after failure (except items undergoing maintenance by the Contractor in Government-furnished facilities). Such failure shall not be cause for the Contractor to reduce

any service or performance.

C.4.6 Maintenance: Maintenance, or lack of maintenance, on Government or Contractor-furnished equipment or lack of repair parts, supplies, or materials shall not be cause to reduce any work or service. The Contractor shall provide all equipment and material necessary to provide all work or service in the specified time frames notwithstanding any maintenance requirement on Government or Contractor-furnished equipment, parts, or supplies. The Contractor shall repair, or replace if applicable, at the Contractor's expense, all Government equipment or property, damaged by a lack of preventive maintenance services IAW required maintenance schedules. In event the Contracting Officer determines that laboratory tests are required to determine reason for damages as a result of a Contractor's claim that damage was not caused by any lack of maintenance, results of such laboratory tests shall be conclusive. If such tests support the Contractor's claim, the Government will pay the costs of such tests. If such tests support the Government position, the Contractor shall pay all costs of such tests, to include any related costs.

C.5 Applicable Documents: The Government will furnish, or make available for Contractor use, documents described below except as specified otherwise. All referenced Federal laws, codes, directives, and instructions in force at time of solicitation, unless coded otherwise, shall be considered mandatory as applicable to the service or function to be performed. All other publications are applicable as coded.

***NOTE TO WRITER:** All referenced publications should be furnished or made available for potential Contractor review. All Army publications must be furnished to successful Contractors. See DA Pamphlet 310 series for additional publications which may be incorporated. Check all available*

sources to determine current issues as DA PAM 310 may not reflect all the latest changes or revisions.

C.5.1 General: The Contractor is obligated to follow and adhere to those documents coded mandatory. Specific paragraphs are referenced in instances where only a portion of the document is mandatory. Supplements or amendments to mandatory publications shall be considered to be in full force and effective upon receipt by the Contractor, except when such supplement or amendment is deemed to cause an increase, or decrease, in cost of contract performance. In such event, the Contractor shall inform the Contracting Officer, in writing, prior to implementation of such supplement or change. If applicable, a negotiated change in contract price will be made to mutual satisfaction of both the Contractor and Government prior to implementation of the change.

C.5.2 Contractor-Furnished Documents: Publications referenced as advisory, but not provided to the Contractor, may be obtained by the Contractor at own expense and will remain Contractor property at completion or termination of the contract except as specified in C.4.4. Failure to obtain, or have, such documents shall not be cause for the Contractor to reduce any service or performance, or reason not to comply with any contract term or condition.

C.5.3 Posting and List of Documents: The Contractor shall provide that all publications received are posted to date. The publications are coded as follows:

Government-Furnished = GF
Contractor-Furnished = CF
Paragraph Specific = PS

NOTE TO WRITER: Code the publications, as appropriate to the installation, using the codes above. Publications listed in the functional areas (C.7.1 through C.7.11) should be incorporated into a single listing. If the publications list is extensive, it is recommended that an attachment be used, and appropriate modification be made to statements above. The installation must insert dates of the current publications and any applicable changes. Army Regulations listed in this paragraph are not repeated in the functional area. Federal, DOD, Army, and MACOM regulations are mandatory for in-house personnel. The installation must determine the extent they will be mandatory on a Contractor's operations. AR 11-27 and the Army Facilities Energy Plan shall be mandatory and Contractors shall comply.

Army Regulations:

No.	Title
AR 1-8	Smoking in DA Occupied Buildings and Facilities
AR 11-27	Army Energy Program
AR 37-20	Administrative Control of Appropriated Funds
AR 37-60	Pricing for Material and Services
AR 37-100-XX	The Army Management Structure Appropriations and Funds Available for Obligation, Expense, and Expenditures (XX designates fiscal years)
AR 40-5	Preventive Maintenance
AR 40-14	Control and Recording Procedures for Occupational Exposure to Ionizing Radiation (see para. 2, applicability)
AR 40-15	Medical Warning Tag and Emergency Medical Identification (para. 4)
AR 50-6	Chemical Surety Program (para. 3-25)
AR 55-38	Reporting of Transportation Discrepancies in Shipments (applicable to all activities using the Government Transportation System for reporting discrepancies in DoD or GSA Shipments)
AR 190-5	Motor Vehicle Traffic Supervision
AR 190-13	Army Physical Security Program
AR 190-51	Security of Army Property at Unit and Installation Level
AR 200-1	Environmental Protection and Enhancement
AR 200-2	Environmental Effects of Army Actions
AR 210-50	Housing Management
AR 310-50	Catalog of Abbreviations and Brevity Codes (available in microfiche only)
AR 340-17	Release of Information and Records from Army Files
AR 385-10	Army Safety Programs
AR 385-11	Ionizing Radiation Protection
AR 385-30	Safety Color Code Markings and Signs
AR 385-32	Protective Clothing and Equipment
AR 385-40	Accident Reporting and Records
AR 385-55	Prevention of Motor Vehicle Accidents
AR 405-45	Inventory of Army Military Real Property
AR 415-10	Military Construction - General
AR 415-28	Department of the Army Facility Classes and Construction Categories (Category codes)
AR 415-35	Minor Construction

AR 420-10	Management of Installation Directorates of Engineering and Housing Personnel		activities
AR 420-15	Certification of Utilities Plant Operators and Personnel Performing Inspection and Testing of Vertical Lift Devices	AR 750-20	Prevention, Control, and Abatement of Pollution from Mobile Equipment
AR 420-16	Facilities Engineering Reports	AR 750-22	Army Oil Analysis Program
AR 420-17	Facilities Engineering Material/Equipment Management and Relocatable Buildings	<u>Technical Bulletins:</u>	
AR 420-22	Preventive Maintenance and Self-Help Programs	TB ENG 53	Welding and Metal Cutting at NIKE Sites
AR 420-40	Historic Preservation	TB ENG 54	Utilities Contracts
AR 420-41	Utility Contracts	TB ENG 62	Inspecting and Testing Chain Hoists in Warheading Bldgs
AR 420-43	Fac Eng Electric Services	TB ENG 249	Coal Sampling
AR 420-46	Water and Sewage	TB ENG 250	Wood Preservation
AR 420-47	Solid and Hazardous Waste Management	TB ENG 254	Coal Samplers-Certification & Evaluation
AR 420-49	Heating, Energy Selection and Fuel Storage, Distribution and Dispensing Systems	TB ENG 255	Paint Marking of Obstructions to Air Navigation
AR 420-54	Air Conditioning, Evaporative Cooling, Dehumidification, and Mechanical Ventilation	TB ENG 256	Controlled Humidity Storage
AR 420-55	Food Service and Related Equipment	TB ENG 257	Packing and Crating Contract Performance
AR 420-70	Buildings and Structures	TB ENG 259	Utilities Utilization Targets and Evaluation
AR 420-71	Leased Premises		
AR 420-72	Surfaced Areas, Railroads, and Associated Structures	TB ENG 400	Custodial Services Contract Guidance
AR 420-74	Natural Resources: Land, Forest, and Wildlife Management	TB ENG 402	Self Help Program
AR 420-76	Pest Management	TB ENG 403	Lamson Pneumatic Tube System Tester
AR 420-81	Custodial Services	TB ENG 404	Repair to Fuel Oil Tanks
AR 420-83	Maintenance and Services (M&S) Equipment and Facilities Engineering Shops	TB ENG 405	Standards for Reactivation of Inactive Facilities for Mobilization
AR 420-90	Fire Protection	TB MED 163	Sanitary Control of Army Swimming Pools and Swimming Areas
AR 600-50	Standards of Conduct for Department of the Army Personnel	TB 385-2	Nuclear Weapons Firefighting Procedures
AR 600-55	Motor Vehicle Driver Selection, Training, Testing, and Licensing	<u>DA Pamphlets:</u>	
AR 604-5	Clearance of Personnel for Access to Classified Defense Information and Material	DA Pam 11-25	Life Cycle Management Model for Army Systems
AR 670-10	Furnishing Uniforms or Paying Uniform Allowances to Civilian Employees	DA Pam 200-1	Handbook for Environmental Impact Analysis
AR 700-132	Joint Oil Analysis Program		
AR 702-13	Army Warranty Programs	DA Pam 385-1	Unit Safety Management
AR 725-50	Requisitioning, Receipt, and Issue System	DA Pam 385-3	Protective Clothing and Equipment
AR 735-5	Policies and Procedures for Property Accountability	DA Pam 420-2	Management of Fire Prevention and Protection Program
AR 735-11	Accounting for Lost, Damaged, and Destroyed Property	DA Pam 420-3	Facilities Engineering
AR 740-1	Storage and Supply Activity Operations		
AR 746-1	Packing of Army Material for Shipment and Storage		
AR 750-1	Army Material Maintenance Policy and Retail Maintenance Operations		
AR 750-7	Installation Material Maintenance Ac-		

DA Pam 420-6	Facilities Engineering Resources Management System	TM 5-660	Maintenance and Operation of Water Supply, Treatment and Distribution Systems
DA Pam 420-7	Natural Resources, Land, Forest, and Wildlife Management	TM 5-661	Inspection and Preventive Maintenance Service for Water Supply Systems at Fixed Installations
DA Pam 420-47	Military Solid Waste Management	TM 5-662	Swimming Pool Operation and Maintenance
DA Pam 738-750	The Army Maintenance Management System (TAMMS)	TM 5-665	Operation and Maintenance of Domestic and Industrial Wastewater Systems
<u>Army Technical Manuals:</u>		TM 5-666	Inspections and Preventive Maintenance Services, Sewage Treatment Plants and Sewer Systems at Fixed Installations
TM 5-315	Firefighting and Rescue Procedures in Theaters of Operations	TM 5-670	Repairs and Utilities Refrigeration, Air-Conditioning, Mechanical Ventilation and Evaporative Cooling
TM 5-609	Custodial Services Manual	TM 5-671	Preventive Maintenance of Refrigeration, Air-Conditioning, Mechanical Ventilation & Evaporative Cooling
TM 5-610	Preventive Maintenance Facilities Engineering Buildings and Structures		Solid Fuels Operations
TM 5-611	Repairs and Utilities Post Engineer Shops	TM 5-675	Repairs and Utilities Petroleum, Oil, and Lubricants (POL)
TM 5-615	Concrete and Masonry	TM 5-678	Facilities Engineering Electrical Facilities Safety
TM 5-617	Maintenance and Repair of Roofs	TM 5-682	Facilities Engineering Electrical Interior Facilities
TM 5-618	Paints and Protective Coatings	TM 5-683	Maintenance of Fire Protection Systems
TM 5-620	Buildings and Structures; Caulking and Glazing, Repairs and Utilities	TM 5-695	Historic Preservation
TM 5-621	Lathing and Plastering	TM 5-801-1	Storage and Materials Handling
TM 5-622	Maintenance of Waterfront Facilities	TM 743-200-1	Storage Modernization
TM 5-623	Pavement Maintenance Management	TM 743-200-2	Storage and Materials Handling
TM 5-624	Maintenance and Repairs of Surface Areas	TM 743-200-3	
TM 5-625	Sheet Metal	<u>Public Law:</u>	
TM 5-627	Maintenance of Trackage	PL 94-580	1976 Resource Conservation and Recovery Act (RCRA) of 1976
TM 5-629	Herbicide Manual for Noncropland Weed	PL 91-190	National Environmental Policy Act of 1969
TM 5-630	Natural Resource Land Management and Ground Maintenance	PL 91-596	Occupational Safety and Health Act of 1970
TM 5-631	Forest Management	PL 92-516	Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) of 1972 (as amended)
TM 5-632	Military Entomology Operational Handbook	PL 93-205	Endangered Species Act of 1973
TM 5-633	Fish and Wildlife Management	PL 94-469	Toxic Substance Control Act
TM 5-634	Refuse Collection and Disposal	PL 94-590	Resource Conservation and Recovery Act (RCRA) of 1976
TM 5-636	Kitchen Equipment; Repair and Utilities		
TM 5-637	Inspection and Preventive Maintenance Services for Kitchen Equipment		
TM 5-640	Ranges, Bake Ovens and Burners for Mess Equipment Repairs and Utilities		
TM 5-642	Warm Air Furnaces Repairs and Utilities		
TM 5-643	Repairs and Utilities-Preventive Maintenance for Heating Plants and Systems		
TM 5-644	Boiler Heating: Repairs and Utilities		
TM 5-646	Space Heaters: Repairs and Utilities		
TM 5-650	Repairs and Utilities: Central Boiler Plants		
TM 5-651	Central Boiler Plants, Inspection and Preventive Maintenance Services		
TM 5-652	Steam, Hot Water and Gas Distribution Systems, Repairs and Utilities		
TM 5-653	Steam, Hot Water and Gas Distribution Systems, Inspection and Preventive Maintenance Service		
TM 5-654	Maintenance and Operation of Gas Systems		

PL 95-516 92nd Congress, H.R. 10729-Federal Environmental Pesticide Control Act of 1972, 21 Oct 72
 PL 96-510 Comprehensive Environmental Response Compensation and Liability Act of 1980

Executive Orders:

Exec. Order 11643 8 Feb 1972 Environmental Safeguards
 Exec. Order 11752 17 Dec 1973 Prevention, Control, and Abatement of Environmental Pollution at Federal Installations
 Exec. Order 12003 19 Jul 1977 Army Energy Goals

Engineer Manual:

EM 385-1-1 Engineer Safety and Health Requirements Manual (available from Superintendent of Documents, WASH, D.C.)

NOTE TO WRITER: MACOM or local supplements to any regulation should be inserted. Supplements should be referenced with the applicable DA regulation, etc.

OSHA and Other Requirements:

29 CFR 1910
 Operational Safety and Health Administration (OSHA) Requirements - All applicable to contract services

National Institute of Occupational Safety and Health Requirements - All applicable to contract services

National Fire Protection Association Standards and codes. Available from NFPA, 470 Atlantic Ave., Boston, MA 02210

IRSADS Internal Revenue Service Asset Depreciation Range Tables

National Electric Code, current edition

American Hospital Association (AHA)

Catalog #2117 1979 Infection Control in the Hospital
 Catalog #1262 1978 Signs and Graphics for Health Care Institutions
 Catalog #1975 1972 Safety Guide for Health Care Institutions
 1974 Hospital Engineering Handbook
 Safety Guide for Health Institutions
 Infection Control in the Hospital

Joint Commission on Accreditation of Hospitals (JCAH):

1981 Accreditation Manual for Hospitals, Chicago: JCAH, 1981

State or Local Government References: (specify)

Industrial References:

Manufacturers' operating and maintenance bulletins, parts/spare parts lists, drawings, etc., for all equipment.

NOTE TO WRITER: The writer should include/insert additional reference material or documents necessary to include those referenced herein in the functional areas (C.7.1 through end of C.7) which are applicable to the final package.

RECOMMENDED FORMAT

Publication No. [include date(s)]	Applicable Section (page, unit (etc.))	Section Cross-ref to Description/ Specifications
	Advisory	Mandatory

NOTE TO WRITER: Insert a title column in format.

C.6 General Tasks and Standards:

NOTE TO WRITER: *A local decision is required as to extent of the review in the management area. It is recommended that the Government receive and assign priority to all repair work (work order control desk), as a Contractor will not normally be aware of Government's plans to upgrade, change, or alter, etc., equipment or facilities. The enclosure to HQDA LTR 420-85-3 provides examples for prioritizing work. A copy is provided with notes to writer after C.6.22 below. However, this interface should be limited to that needed for efficient, effective service. Operation, maintenance, repair, minor construction, and related services are covered in this guide. The installation should consider carefully any related administrative services and require only those necessary. The requirements listed in C.6 herein should be inserted in C.1 through 5 of the PWS, or in the special contract requirements section (SECTION H) as applicable. (See OFPP PAM #4 (Part II of supplement to OMB Cir. A-76) for PWS format.)*

C.6.1 Service and Maintenance Management: The Contractor shall provide all services and maintenance management required to perform the work and meet all performance standards as specified. Standards may be specified in the performance statements or attached performance statements summary tables. Where publications containing additional standards are advisory in nature IAW reference, acceptance of the work shall be based upon the reasonable and logical judgment of the Contracting Officer using the standards as guidance. The Contractor shall be aware of improvements in state-of-the-art for all RPMA functions covered under the contract (such awareness is a necessity if the Contractor is required to advise the DEH as to best means to resolve RPMA operational, maintenance, and repair problems in the most economical manner possible).

C.6.1.1 Inspections: The Contractor shall make a comprehensive inspection of all facilities, and submit a preventive maintenance (PM) service plan along with the Contractor's QC plan and annual work management plan not later than (specify). The preventive maintenance plan shall list all PM schedules and discrepancies found and all work anticipated for maintenance or repair of the facilities. Each subsequent 12 months thereafter during the contract period, to include any extensions of contract term, the Contractor shall make an additional inspection of the total facilities and update the annual work management plan (specify minimum/maximum interval). The Contractor shall make additional inspections as necessary to provide that all contract work is accomplished as specified. Inspection files shall be prepared and maintained by the Contractor which shall reflect past and current inspection dates, results of all inspections, corrections required, and corrections made. If corrections have not been made, the file shall include a schedule for completion of required work and provide an acceptable explanation to the Contracting Officer as to why corrections have not been made, to include BMAR (that work delayed by the DEH).

Current Government inspection files will be turned over to the Contractor on contract start date. (See FAR 52.246-1 and 52.246-4 or other applicable clause of FAR and its supplements and reference applicable inspection clauses).

C.6.1.2 Staff Visits: The Contractor is advised that HQDA/MACOMs often conduct staff visits to the installation, to include functional areas covered under the contract. These visits usually result in recommendations for improvements deemed necessary to enhance the overall mission. In addition, the visits may require support such as providing knowledgeable personnel to tour and inspect the areas. The Contractor shall provide support, as necessary. These visits are estimated to occur (specify) times per year. Recommendations for improvements of areas or work which are the Contractor's responsibility shall be implemented as directed by the Contracting Officer.

C.6.1.3 Contractor Contact with Government Personnel, Caution to Contractor: The Contractor is advised that any work at the direction of unauthorized Government personnel, or without an approved DEH authorization (SOO, SO, IJO) will not be credited as work accomplished under the contract. All RPMA work will be controlled and monitored by the Government by use of SO, SOO, or IJO documents as defined in C.2 and the Contractor's schedules. The Contractor responsibility for use of these documents is set forth in (insert applicable requirements). The Contractor is further cautioned that failure to provide work schedules as specified will result in a determination that required work was not performed and no payment will be made due to the Government's inability to verify performance.

C.6.2 Work Control:

a. The Contractor shall receive from the Government, schedule, and perform all work IAW all terms and conditions contained in the contract. The Contractor shall develop and provide all specified written plans and schedules. The Contractor shall develop and provide a comprehensive, detailed maintenance schedule for daily, weekly, biweekly, monthly, quarterly, semiannually, and annually startup and shutdown work. The Contractor's schedules shall reflect current maintenance document recommendations (to include manufacturers' maintenance recommendations and instructions). All tasks shall be listed and performed IAW these recommendations and the Contractor's schedules. All schedule(s) shall be kept current. Work schedules shall be provided to and shall be subject to Contracting Officer review and approval (Ref: SECTION F).

b. The Contractor shall provide a local telephone number, or a long-distance telephone number with reverse charges, as applicable, that is answered 24 hours per day, seven (7) days per week, at which the Contractor can be notified of emergency work. The Government shall not be expected to call

a series of phone numbers in order to locate the Contractor or the Contractor's designated representative. FAILURE TO MAINTAIN ACCEPTABLE COMMUNICATION CHANNELS SHALL BE UNSATISFACTORY SERVICE. (Installation will insert any necessary time frames.)

NOTE TO WRITER: *Repetitive work should be scheduled by the Contractor at the same time period on each consecutive day work is scheduled to be performed. If repetitive work can be measured without scheduling, do not specify. Contractor should only be required to schedule tightly if necessary to contract surveillance. A complete preventive maintenance program must be developed and specified by Government, IAW DODI-4165-64, dated 23 May 1985. See C.7.6.2.5 through C.7.6.2.7, as an example.*

c. The Contractor shall inspect, schedule, control, and perform all work covered by the fixed-price portion of the contract IAW the Government established priority. Contractor-initiated level III work shall be initiated by job order request (JOR-DA-Form 4283). This form shall be submitted by the Contractor to the Contracting Officer for further action.

d. The Contractor shall receive requests for estimates or firm fixed prices, as applicable, for Level III work within contract scope for negotiation purposes under the indefinite delivery portion of the contract. The Contractor shall provide accurate and complete response to such requests within five (5) workdays unless additional time is granted, in writing, by the Contracting Officer.

C.6.3 Weekly Schedules: The Contractor shall submit detailed functional area schedules of work covering the following week NLT the (specify) day of the current week. Each functional area schedule shall include preventive maintenance schedules for the function's equipment and systems to be maintained. The first weekly schedules shall

be submitted NLT ten (10) workdays prior to commencement of work. The schedules shall indicate what, when, and where required work is to be accomplished. The Contractor shall attend scheduled maintenance meetings with the DEH (specify needs) to assist in development of mutually compatible work schedules. The Contractor shall work to the schedules. Revisions or changes to any schedule shall be submitted (specify time frame) in advance and shall indicate reason for any revision or change. All revisions and changes are subject to Contracting Officer review and approval prior to implementing such revision or change. Contracting Officer approval/disapproval may be oral or in writing, depending on the occasion. The Contractor will be notified (specify) days in advance of any unscheduled meetings.

C.6.4 Records and Filing Systems:

NOTE TO WRITER: *See Notes to Writer following C.6.22 concerning IFS prior to writing this part. Be specific and detail file and records requirements. Specify "who" in Government will be authorized to request work, etc. Files and records must be held to minimum required. See notes after C.6.22 to determine report requirements. All files/filing requirements must be listed on the CDRL (DD Form 1423) or other applicable listing.*

a. Complete and accurate operating, maintenance, and repair reports shall be prepared and submitted by the Contractor to the Contracting Officer of all work IAW (specify). (Do not require records, files, etc., where work is Contractor responsibility.)

NOTE TO WRITER: *Project files will be maintained by the Government residual management staff as required by AR 420-17 (page 3-1, para. 3-8), "Establishment of Official Project Files." A project folder is required for construction costing more than \$15,000 or maintenance and repair costing more than \$50,000. The residual staff will also maintain SO, SOO, and IJO documents and operate and maintain IFS.*

b. The Contractor shall maintain complete and accurate equipment and facility records and files.

c. **Shop Drawings:** The Contractor shall provide to the Contracting Officer, markup drawings or other requested information for updating real property records. Markup drawings shall be legible and shall include in detail any update. This documentation is required whenever any alteration or reconfiguration of an existing system is made. All drawings shall be made on standard size sheets made to applicable drafting standards (specify standards or state where found.) (Ref. FAR 361.102)

C.6.5 Supply: The Contractor shall: (If supply system remains in-house, specify how the Contractor will interface with Facilities Engineering Supply System (FESS); e.g., by providing input data. Insert data required.)

a. Maintain the Government-furnished supply items. Maintain records to provide accountability of any Government supply items. (Specify any necessary minimum levels of stockage, if the Contractor provides, delete or reword C.6.5.)

b. When repair parts can only be obtained from Government sources, request repair or replacement parts through the military supply system by filling out DD Form 1348, DA Form 3953, or other applicable forms (specify other forms). Procedures and methods to be used, and list of parts and supplies available only through the military supply system are shown in attachment (specify) (below). (Ref. FAR 52.251-1)

c. Inspect shipments of new equipment or repair parts provided by the Government upon receipt to verify that all parts are present and that needed items have been delivered as requested. Any discrepancy in such shipments shall be reported to the Contracting Officer, in writing, within (specify) from time of receipt. (Installations will not require a Contractor to inspect or accept, for the Government, shipments from other Contractors. This is a Government responsibility.)

C.6.6 Personnel:

a. The contractor shall act as, or provide, a project manager physically present on site, except on legal public holidays, during the hours (specify) through (specify), Monday through (specify). The project manager shall conduct overall management coordination and shall be the central point of contact with the Contracting Officer for performance of all work under the contract. Another individual may be designated to act for the project manager when work is being performed at hours other than as listed above or during absences such as illness, vacation, etc. Advance notice of such change shall be provided to and reviewed by the Contracting Officer. The project manager, and any individual designated to act for him, shall have fully authority to contractually commit the Contractor for prompt action on matters pertaining to Contractor administration of the contract. The project manager (and any alternate) shall be able to understand, speak, read, and write the English language. (If manager(s) are required to be on site at times other than normal duty hours for emergencies, etc., specify requirements.)

NOTE TO WRITER: Any certification or other personnel qualifications (not Contractor experience) should be listed. If a project manager is required in more than one functional area, reword the paragraph as appropriate. Consolidate and

include training requirements in one paragraph. Where the Contractor is required to train Government personnel, the specific training tasks should be consolidated under one heading and included as appropriate.

b. The Contractor shall provide all necessary personnel to accomplish all contract work or service within specified time frames. This provision shall apply notwithstanding past historical records, estimates of personnel needed, or any minimum levels established elsewhere herein to include any contractor proposal incorporated by reference. All personnel utilized under the contract shall be legal residents of the United States. Contractor personnel performing the following duties shall be U.S. citizens (DEH will identify the applicable positions and document the file to show why only U.S. citizens can perform).

c. The Contractor (or if appropriate, Government) shall provide each Contractor employee an identification badge. The badge shall include, as a minimum, the person's name, social security number (SSN), and the Contractor's firm name. The Contractor shall ensure that Contractor personnel shall wear the badge at all times when performing work under the contract.

d. The Contractor shall provide uniforms for (insert functions requiring uniforms) and rank insignia of a style and color (specify acceptable types) approved by the Contracting Officer. The uniforms shall be maintained so as to provide acceptable appearance at all times. (Specify that the Contractor shall be responsible for uniform maintenance and establish acceptable appearance standards: delete rank insignia if not needed.)

C.6.7 Contingencies: The Army must plan, in advance, how it will meet mission requirements in event of a national emergency or natural disaster. The army must be able to react to such events without undue delay. Sudden or unusual events could impact upon the Contractor's performance and contract requirements. In the event that unusual conditions as specified below develop, the Contractor shall continue, and expand if necessary, contract performance. In the event that a national emergency or natural disaster occurs and results in an increase of work directed by the Contracting Officer, and an increase in cost of performance, such increase will be subject to the Contract Clause entitled "CHANGES." (AR 210-10, Change 2, spells out some contingency plans.) (Ref: SECTION L)

a. A sudden buildup of military forces increases contract requirements.

b. A natural disaster occurs which impacts upon Contractor's ability to perform.

c. A strike occurs which impacts upon the Contractor's ability to perform (insert other events identified by the installation).

d. In all cases, the Contractor shall assume that the Army cannot provide any supplemental forces and will continue to need the same or additional performance under the contract, which the Contractor shall be required to meet.

NOTE TO WRITER: Contingency requirements, on a case-by-case basis, must be established at each DEH. The activity must prepare a contingency plan that addresses what course of action should be taken under such circumstances. The Contracting Officer will then be in a position at the time of emergency to define what is needed and direct the Contractor to take necessary action, based on the emergency condition. Specify any Contractor responsibility to provide update or recommended changes in operations, which will affect spill plans or improve military operations. Any recommended changes should indicate value engineering reason. Development of contingency plans is a Government responsibility. (See AR 5-20 for policy on mobilization contingencies.) Draft Contractor contingency plans should be required with bid/offer and specified in SECTION L of the solicitation.

C.6.8 Security Requirements: The Contractor shall comply with all applicable installation security requirements (specify where found). The Contractor shall submit the name, SSN, and address of specified employees working under the contract and shall fill out questionnaires or other forms as may be required for security purposes (as shown below) (as shown in attachment (specify)). (Ref: DOD 5220.22R and 5220.22M)

NOTE TO WRITER: Specify applicable security regulations, instructions, directives, SOPs (as information only), etc. Identify to specific facilities or positions. Include, or provide attachment, clear, concise instructions as to method for obtaining security clearances. Specify clearance level(s). Include a statement that if the Contractor fails to obtain and maintain security clearance that "watchers" will be provided by the Government, one on one, at contractor cost. Establish such cost. This will provide incentive to obtain and maintain clearances as such "watchers" would be expensive. C.6.8 and C.6.9 should normally be inserted in solicitation/contract SECTION H. Note, however, that many Army activities have requested security clearance under the Defense Industrial Security Programs (DISP) for Contractors who do not require access to classified information, but must work within restricted areas. A suitability investigation should be requested IAW para. 3-601, AR 604-5 (DOD 5200.2-R). A security clearance under the DISP is not a license for access to classified information or a substitute for security measures designed to prevent

unauthorized access.

C.6.9 Vehicle Registration: The Contractor shall obtain, and shall require Contractor personnel to obtain, vehicle passes/decals from the Provost Marshal prior to commencement of contract work on the Government installation IAW (insert installation regulation or instructions). Vehicle passes/decals shall be returned by Contractor to the Provost Marshal within (specify) hours when any employee is no longer in the services of the Contractor. All passes/decals shall be returned upon completion or termination of the contract. The Contractor shall maintain records of licenses of heavy equipment operators in order to verify and document operators' skill in using heavy equipment.

C.6.10 Quality Control Program:

NOTE TO WRITER: A draft Contractor Quality Control Program (QCP) may be required along with an offer if needed by the Contracting Officer to utilize in his determination of responsibility of the Contractor for a RFP. A draft Contractor QCP may be required for an IFB not later than (specify days) after award. DoD directive 4155.1 should be used as a guide to write QC requirements. (Ref: FAR Part 46, and DFARS Part 246.102 "Policy")

C.6.10.1 Contractor Quality Control Program: The Contractor shall establish and maintain a QCP which ensures that all requirements of the contract are met as specified. Work will be permitted only after review and acceptance of the QCP, or at least review of that portion of the plan applicable to the specific feature of work. At the discretion of the Contracting Officer, no work shall be performed nor any invoice be processed under the contract until the entire QCP has been reviewed and accepted. (If allowed to perform, the Contractor must be paid for any work performed satisfactorily. Payment will not be withheld in such instance. Do not allow Contractors to determine your needs for you. (Ref: SECTION F)

C.6.10.2 Draft Program: For a RFP, a copy of the Offeror's draft Quality Control Program (QCP) must be submitted along with the offer. The responsibility includes providing inspection and inspection reporting, systems testing as required by the contract, providing survey control, preparing as-built drawings, maintaining inspection and system testing documentation, including off-site quality control records such as manufacturer's certificates of compliance, and submitting copies of all contract documentation to the Contracting Officer. The QCP shall include as a minimum the following:

a. Confirm when and where routine testing will be required and arranging with the laboratory to have tests per-

formed.

- b. Provide lab personnel with needed information.
- c. Witnessing all testing and verifying that requirements were followed.
- d. Arrange for specialist assistance for witnessing testing, as required.
- e. Record all testing on a Daily Construction Report or other required reports as required.
- f. Document all areas of nonconformance.
- g. Maintain copies of test results, inspection reports, certification papers and permits.
- h. Verify that testing devices are calibrated.
- i. Coordinate site activity.
- j. Visual inspection of all items not requiring laboratory testing.
- k. Prepare and maintain inspection checklists.
- l. Provide methods of identifying deficiencies in the quality of services performed before the level of performance becomes unacceptable.

m. Methods of documenting and enforcing QC operations of both prime and any subcontractor work, including inspection and testing.

n. Methods for key control as required C.6.16.

o. Provide winterization plans and procedures.

p. Construct the QCP in such a manner that each functional area plan (see C.1.7) may be extracted and used for that function only and not contain information extraneous to that function.

C.6.10.3 Acceptability: The Contractor's work and any services performed shall be accepted only when in full compliance with the clause entitled "INSPECTION OF SERVICES-FIXED PRICE" (FAR 52.246-4). For purposes of acceptance, the Contractor's QC program will be considered as work or service and shall be subject to acceptance throughout the term of the contract, to include any extensions of contract term. The Contractor shall notify the Contracting Officer in writing of any proposed change to the QC program. No change shall be implemented prior to review by the Contracting Officer.

C.6.11 Performance Evaluation Meetings: The Contractor shall meet with the Contracting Officer (insert weekly, monthly, etc.) during the first (specify) days. Meetings shall be held thereafter as determined necessary by the Contracting Officer. However, a meeting shall be held within (specify) hours when a Contractor's Deficiency Report (CDR) is issued. Mutual effort will be made to resolve any and all problems identified. Written minutes of these meeting shall be prepared by the (Government) (Contractor) and shall be signed by the Contracting Officer, the Contractor, or their designated representatives, as appropriate to the occasion. Should the Contractor not concur with any minutes, he shall so state, in writing.

C.6.12 Installation Closures: When an unforeseen installation closure occurs on a regularly scheduled workday, the Contracting Officer shall have the following options:

a. Reschedule the work to be performed the following day unless the following day is a Sunday and routine work is not scheduled on Saturday or Sunday.

b. Reschedule the work on any day mutually satisfactory.

c. When mutually agreed, to forego the work and reduce payment due Contractor accordingly for work not performed. (Insert applicable installation procedures. Contractor may be required to pay contractor personnel under such circumstances. Care must be taken to ensure that contractor will

not incur a loss in such event.)

C.6.13 Hours of Operation: Routine inspection, maintenance, and repair work shall be accomplished during normal duty hours from (specify) to (specify) hours, Monday through (specify) excluding legal public holidays. Operation of plants or systems shall be accomplished as specified in each functional area. Where operators of Government facilities or equipment are required at other than the above normal duty hours, the Contractor shall comply with the specific operational requirement (reference specific paragraphs).

C.6.14 Response: Emergency repair or maintenance work shall be accomplished whenever required, and shall be carried to removal of the emergency situation without interruption, notwithstanding normally scheduled working hours, weekends, or holidays. Response to emergency service calls during off-duty hours shall not exceed (specify) hour(s), regardless of the time during the day or night, weekends or holidays. Emergency service call response time, except fire prevention services, during normal duty hours shall not exceed (specify) (minutes) (hours). Response to urgent calls shall not exceed (specify) (hours) (days) and response to routine calls shall not exceed (specify) days. Response, as used in relation to service calls, means the Contractor's work force is at the work site ready to commence required work. Contractor shall comply with all Government established priorities.

C.6.15 Legal Public Holidays: Except as otherwise specified, routine work shall not be scheduled on holidays or holidays, observed in lieu thereof. When a service is required less than three (3) times per week and the schedule for that work falls on a holiday, the work shall be accomplished on the day following or preceding the holiday. (Ref: 5 USC 6103(a))

C.6.16 Key Control: The Contractor shall establish a control system to ensure that no keys issued to the Contractor by the Government are lost, misplaced or used by unauthorized persons. Government keys shall not be duplicated by the Contractor without Contracting Officer approval in advance. Procedures developed to control Government keys shall be included in the Contractor's QC plan. The Contractor shall:

a. Reimburse the Government for replacement of locks or rekeying required as a result of the Contractor losing any key. In the event a master key is lost or found to have been duplicated, all locks and keys for that system shall be replaced by the Government and the total cost charged against the Contractor.

b. Report any occurrence of lost key(s), as expeditiously as possible to the Contracting Officer. In no event shall the report be later than the beginning of the next workday.

c. Prohibit the use of keys issued by the Government by any person other than authorized Contractor employees. The Contractor shall not permit entrance to locked areas to any person other than Contractor personnel engaged in the performance of work in those areas without written authorization by the Contracting Officer.

NOTE TO WRITER: See C.7.11.8 prior to writing key control requirements and revise and consolidate as necessary. Include control of keys for secure areas.

C.6.17 Handling Hazardous Material:

NOTE TO WRITER: The Government should have a developed plan if applicable. The requirement for this plan depends on the presence of equipment at the installation that uses insulating liquids or other toxic materials. A plan is not required if such equipment and liquids are not used. Environmental Protection Agency (EPA) regulations cover toxic materials. Specify all Contractor requirements. Include all toxic materials. (Hazardous material is defined in Federal Standard No. 313A. A separate guide was developed for TRADOC covering asbestos containment or removal. If needed, copies should be requested from the TRADOC Engineer). See AR 420-27 to develop waste management requirements. (Ref: FAR 52.223-3 and C.7.6.5 below)

C.6.18 Energy and Utilities Conservation Programs:

NOTE TO WRITER: The installation must establish a specific goal for energy conservation based upon installation requirements. Use and need for plans or programs will depend on extent of similar past work, anticipated value of expected results, type of contract, specific vendors expected to make an offer, and practicality. Require the Contractor to designate an individual responsible for energy conservation matters. This is an in-house responsibility; consider and use the following as appropriate to specify any Contractor responsibility.

a. The Contractor shall comply with the installation energy conservation plans and AR 11-27, participate in energy conservation activities, and make suggestions to the Contracting Officer on activities and improvements to promote efficient use

of all energy. The Contractor should evaluate and recommend measures that can be taken to:

- (1) Reduce general operating costs.
- (2) Minimize energy losses.
- (3) Add insulation or make other changes for savings.
- (4) Use timing or cycle control devices to promote energy savings.

b. (If an energy plan is available, it should be referenced in the PWS. If a plan is not available, list the key requirements.) The Contractor shall:

(1) Train Contractor personnel to conserve energy by turning off unneeded equipment. Controls for heating, ventilation, and air-conditioning systems shall not be adjusted by unauthorized workers.

(2) During the summer season, the controls shall be set to hold dry bulb temperatures not lower than 78°F during working hours except in critical facilities.

(3) During the winter season, the controls shall be set to maintain dry bulb temperature not higher than 65°F during working hours and shall be set to maintain dry bulb temperature of not more than 55°F during nonworking hours except in critical facilities.

c. The Contractor shall instruct Contractor's personnel in utilities conservation practices, and shall require them to operate under conditions which preclude waste of utilities. The Contractor's instructions and programs shall include the following:

(1) Use of lights only in areas where work is actually being performed.

(2) Water faucets, valves, and equipment shall be turned off after required usage has been accomplished.

(3) Government telephones shall not be used for personal reasons nor any toll or long-distance calls.

d. Consider the following when developing requirements:

(1) Preparation of annual updates to the installation Energy Plan.

(2) Recommendations for energy conservation measures.

(3) Preparation and input of energy consumption and energy related data into the Defense Energy Information System (DEIS). This must be done twice each month.

(4) Analysis of energy consumption and energy related data each month and discussion at energy council meeting. A quality analysis must be presented to the commander.

(5) Conduction of energy awareness week the last full week of each October.

(6) Prioritizing work orders that will result in energy or cost savings.

(7) Consideration of energy consumption and cost when purchasing equipment.

(8) Performance of all duties as prescribed in para. 1-51 AR 11-27 and performance of energy conservation IAW para. 1-6 and 1-7 of the AR.

(9) Performance of program requirements described in AR 11-27 except Energy Research and Development.

(10) Operation of EMCS and in times of peak load, cycle, or de-energize enough energy consuming equipment to attempt to prevent a new high peak demand.

(11) Monitor and maintain the installation power factor at approximately 0.90 to 1.00 or at the level which does not result in a penalty from the public activity.

C.6.19 Interfaces:

a. The Contractor shall comply with all restricted areas' procedures and instructions. Contractor personnel working in restricted areas such as computer rooms, command communication center, etc., may be required to sign in and out and state the nature of business at the entrance desk. Work in restricted areas after normal duty

hours shall be coordinated with the respective restricted area Security Officer through the Contracting Officer.

b. Government personnel will be working in office areas during working hours. Contractor operations shall not unduly interfere with Government work in the area where any service or maintenance work is being performed. In event Government office managers so request, the Contractor shall temporarily cease work in these areas and report the instructions to include names and telephone numbers of the Government personnel involved to the Contracting Officer by the most expedient means. The Contracting Officer will then direct the Contractor as to how to proceed with contract operations. Only the Contracting Officer (or the COR if authorized) can authorize a work stoppage. Failure by the Contractor to notify the Contracting Officer and receive necessary instructions could result in an unauthorized work stoppage.

C.6.20 Warranties:

a. The Contractor shall exercise all existing manufacturers' commercial warranties on Government equipment on Government's behalf. Contractor shall report any difficulty in exercising manufacturers' warranties to the Contracting Officer and request assistance as necessary. Current existing warranties are listed in attachment (specify).

b. Equipment installed by the Contractor that fails within a warranty period due to poor workmanship or by not following manufacturers' installation or operating instructions shall be replaced or repaired at the Contractor's expense. This determination will be made by the Contracting Officer.

C.6.21 Environmental Program:

a. The Contractor shall comply with all applicable Federal, State, and local laws, regulations, and standards (specify where found) regarding environmental pollution. All environmental protection matters shall be coordinated through the Contracting Officer with the Post Environmental Protection Coordinator. The Post Environmental Protection Coordinator is located at (specify), telephone (specify) (etc.).

b. Any of the Government facilities operated by the Contractor may be inspected by the Post Environmental Protection Coordinator, or other Federal, State, or local officials on a short-notice basis. Access for inspection shall be granted upon notice from the Contracting Officer. The Contractor will be provided (specify) hours advance notice of such visits by the Contracting Officer. (All official visitors must be controlled through the Contracting Officer in order to preclude, or prevent, undue interruption of a Contractor's operations.)

c. Citations against Government facilities operated by

the Contractor for noncompliance with environmental standards are a matter for resolution between the installation representatives and the issuing office of EPA or State of (insert) Regulatory Authorities. Payment of fines or penalty charges associated with citations issued by Federal, State, or local officials shall be paid by the Government. If the citations are issued due to faulty operation or maintenance practices by Contractor, the Contracting Officer shall deduct the fine from any moneys due the Contractor.

NOTE TO WRITER: The installation must develop and maintain spill contingency plans and provide equipment/material to meet EPA response requirements. If local plans are available, these may be referenced. Indicate any responsibility the Contractor will have concerning spills. (Do not attach bulky plans or SOPs; reference and provide a central location for potential Contractor's review purposes.)

C.6.22 Reports: The Contractor shall provide all reports described (specify).

NOTES TO WRITER: The pages which follow, through end of C.6., are a part of these Notes to Writer. The installation must identify any report requirements to the specific functional activities included in the solicitation and any resulting contract. This will permit offerors to identify applicable reporting requirements to the applicable function and to submit their bids accordingly, i.e., cost breakout. All report requirements from the Contractor must be individually listed on the CRDL (DD Form 1423) or other applicable listing. Consider the following: Reporting requirements are the same regardless of contract type or in-house vs. contract operation. Ensure that all required reporting data is required and received from the Contractor in a timely manner. DEH should discuss the importance of receiving these reports from a Contractor with the Contracting Officer and encourage his authority be exercised to ensure timely receipt of this information.

a. Report any circumstances of needed repair of the facilities or unusual soiling of an area which may affect performance of contract work, unhealthful or hazardous conditions, or any delays or interference of work by employees of the Government. Such report(s) shall be made as expeditiously as possible by the Contractor to the Contracting Officer. In any event, the report shall be made NLT the close of business (COB) on the same day.

b. Report to the Contracting Officer all personal articles found by the Contractor or his employees. Found articles shall be turned in to the Provost Marshal's Office by the Contractor on the same day found.

c. *Report other circumstances which would affect the Contractor's performance of work required under the contract.*

d. *Provide various information, available only through the Contractor, which must be reported to higher levels of command and as specified below. The Contractor shall develop and maintain a data system which will provide accurate and complete data for the reports. The reporting system developed by the Contractor shall be subject to review and approval by the Contracting Officer. As a minimum, information for the reports shall be maintained and reports submitted at times specified. (IFS data systems contain information that should not be made available to contractors. In those instances where contractors are allowed access to the system, ensure that safeguards are in place to preclude access to such information.) Direct access to IFS, FESS, FEJE, etc., is not recommended. If required, Contractor training for DEH automation systems should be included as a Contractor responsibility.*

e. *The installation must specify data needed and, if applicable, the format in which data will be provided. Minimum use of Government forms is recommended if required data can be provided without use of Government forms. Reporting requirements must be the minimum required to meet the need for financial or other information. Few, if any, Contractors publish their accounting systems or procedures. Any requirement for publishing and submitting such requirements in a cost reimbursement contract could restrict competition, and a strong possibility exists that Contractors would protest any such requirement. Any decision to include such a requirement in a cost reimbursement contract must be reviewed in conjunction with the principles and procedures of the Cost Accounting Standards (Ref: FAR Part 30, DFARS Part 230, and AFARS Part 30). If, after consideration, a requirement is included, it should be included as a separate item of cost breakout.*

f. *Use AR 420-10, AR 420-16, and the examples of flow charts and list of report requirements below to develop reporting requirements. The list of reports include only those*

required at DA or higher level. A paragraph will be dedicated to the information required from the contractor to support local residual staff management for RPMA planning, program execution, and reporting requirements. Specify what the Contractor receives and what is to be delivered to the Government such as detailed estimates, completion dates, total job costs, etc. Procedures for the residual management staff to operate IFS in a contract mode must be developed for internal use.

g. *The following IFS guidance provides the minimum acceptable RPMA cost data reporting. This guidance is based on the premise that the type of contract pursued will be a fixed price contract for Work Levels I and II and a requirements/time and materials type contract for Level III work. If other types of contracts (cost plus) are contemplated, different methods of IFS reporting may be utilized. The Government residual workforce will use those portions of IFS required to perform their function in a contracted environment. Also, contract cost data must be reported by facility, by functional group (AMS Code), and by document number (job). Work approval is a Government responsibility. Based on these policies, the IFS can be operated by the residual workforce in the same basic manner regardless if performance is in-house or by contract.*

The cost of work accomplished by a Contractor must be entered into IFS as a contract cost. In order to accomplish this, completed work documents and contract invoice will be utilized as the data source for Contractor accomplished work. This can be accomplished in the following manner:

(1) *The bid schedule should be in sufficient detail to extract costs for Contractor work performed at a fixed, predetermined level, e.g., operations, custodial services, etc. Cost data input to IFS will be accomplished using DA Form 4284.*

(2) *Work Orders accomplished by a Contractor will be entered into IFS when completed using completed job orders turned in by the Contractor with the estimated or actual costs. Regardless of the initiating source, the Government will receive, approve, and prioritize work requests and forward them to the Contractor on DA Form 4287 or DA Forms 4283/4284/4286, as appropriate. When the work is complete, the Contractor will return the work requesting/authorizing documents to work reception with the total cost of the work entered on either DA Form 4287 or DA Form 4284. The project cost will be entered into IFS in the appropriate transaction code.*

This method of IFS reporting will be applicable to all types of contracts, e.g., fixed price, cost reimbursement, etc.

Operation of the IFS in a contract mode will basically be identical to the operation in an in-house mode except completed job orders (DA Forms 4287, 4283, and 4284) will replace L&E cards for data input of contract work. The writer may wish to consider requiring the Contractor to input data in a machine readable format. If so, detailed data format information must be provided in the PWS to enable the Contractor to be capable of providing the data in the correct form. The bid schedule should include an item for deliverables (IFS data, schedules, plans, etc.), to cover the costs to the contractor for reporting order costs.

The recommended specification for inclusion in the DEH Performance Work Statement is as follows:

Reports Utilizing the Integrated Facilities
Systems (IFS) Forms

The Contractor shall use Government forms to document work data and cost estimates in the following manner:

- (a) Service Orders (Specify work level)

DA Form 4287, Service Order, will be issued to the contractor with section I filled in by the Government. Upon completion of the work covered by the service order, the Contractor shall enter total estimated cost of the work in Section II in the space "Shop Stock Used." The total cost is to include either established or estimated overhead costs. The total cost may be the best estimate if it is part of a Lump Sum Bid item. The Contractor shall enter the data and time that work was started and completed in the appropriate blocks and a brief description of work performed in the space provided. (Note to Writer: Service orders generated by IFDEP shall be given to the Contractor in hard copy in a format to be determined locally.)

- (b) Individual Job Orders (specify work level).

DA Form 4283, Facilities Engineer Work Request will accompany requests for preliminary and detailed cost estimates for individual job orders. It describes the work to be done and pertinent information of the work order. It will indicate approval status of the work order.

DA Form 4284, Facilities Engineering Work Order
DA Form 2764, Job Planning Worksheet
DA Form 2702, Bill of Material

When requested by the Contracting Officer, a detailed cost estimate will be prepared using the applicable portion of the forms listed above. The Contractor shall fill in Document Number, Description of Work, and the Phase Cost Data (Contract Cost only) on DA Form 4284. DA Forms 2764 and 2702 will be completed by the Contractor in sufficient detail to support the detailed job estimate.

Upon completion of each SO or IJO the original DA Forms 4287 or 4284 will be returned to the Government with the completion date, total cost, and remarks recorded on the form as described above.

NOTES TO WRITER: In those instances where work is accomplished by the Contractor prior to issuance of an SO, the Contractor should be required to initiate the 4287 and report the applicable information. This would most likely occur when the Contractor discovers a deficiency and corrects it prior to leaving the area. This should occur in all instances where the work is the Contractor's responsibility and cost. In those instances where the Contractor is provided access to IFS/IFDEP, use of such service shall be at the Contractor's risk.

DODI 4165.64, dated 23 May 1985, directs that: "each installation shall establish a preventive maintenance program to avoid problems before they develop into major failures requiring more costly correction and possible interruption of mission performance." Many PWS packages and MEOs have been developed without fully incorporating requirements for proper maintenance programs in all areas. State-of-the-art maintenance programs, especially for new and recently repaired facilities, are of major concern to DA (Installations and Housing, DASA (I&L). Ensure that your PWS package fully incorporates a good preventive maintenance program. Preventive maintenance is not a trade-off for minor construction or major projects.

A sample Service Order, Individual Task Order, and Work Priority Policy follows:

SERVICE ORDER
(Work Level _____)

Contractor Responsibilities

```

graph TD
    A[Receive Work Request] --> B[Assign Work to Worker]
    B --> C[Worker Completes Task]
    C --> D[Report Progress]
    D --> E[Update Task Status]
    E --> F[Assign New Task]
    F --> A

```

[illegible][illegible]

Execute
Work

Report
Complete/
Inspect

(Work Level _____)

Contractor Responsibilities

Work Reception

[illegible][illegible]

Decision To Do Work

[illegible][illegible]

Approve/Negotiate
Work Order

[illegible]

Inspect
Resort
Complete

[illegible]

Payment

[illegible]

Prepare Preliminary Estimate

Prepare Detailed Estimate

Schedule/Execute
Work

Prepare Invoice

SAMPLE WORK PRIORITY POLICY

1. Purpose The purpose of this policy is to promote better understanding between the DEH and the customer by explaining detailed procedures and priorities for DEH accomplishment of minor maintenance work.

2. Application In general, this policy applies to small-scale maintenance and repair work accomplished on government owned/leased facilities and equipment. This type work is generally referred to as a service order (SO) and is limited to a total of 40 manhours of labor.

3. Service Order Initiation SOs may be initiated by calling or visiting our work reception desk at Bldg. (specify) telephone (specify) during normal duty hours of Bldg. (specify) telephone (specify) during non-duty hours.

4. Service Order Priorities: Service orders will be accomplished based upon the following priority system.

a. Emergency Emergency work takes priority over all other work and requires immediate action, including overtime or diverting craftsmen from other jobs, if necessary, to cover the emergency. Usually work will be classified as emergency when it consists of correcting failures/problems which constitute an immediate danger to life, health, mission, security or property. Examples include: overflowing drains, broken water or steam pipes, gas leaks, major utilities service failures, broken electrical components which may cause fire or shock, stopped up commodes (when only one available for use) and accidental lock-ins of small children. Normal response time to emergency work is within one hour. Once started, work will continue until completed.

b. Urgent Urgent work is required to correct a condition which could become an emergency, could seriously affect morale or has command emphasis. Examples include heating and warm water supply outages, air conditioning system failures, or functional failure of ranges and refrigerators. As a general rule, we will make every effort to accomplish all urgent work within at least two working days of receipt of the request. However, actual response times for urgent work may vary from two hours to five calendar days depending upon availability of craftsmen, relative urgency and time of request (i.e., weekend, night time, duty hours, etc.). Some common urgent type service orders and our target times for response to them are as follows:

1) heating outage - midwinter	2 hours
2) lock-in/lock-out due to defective lock (not due to negligence)	3 hours
3) complete water supply outage to a housing unit or barracks	2 hours
4) inoperable commercial freezer	3 hours
5) inoperable domestic refrigerator	16 hours
6) inoperable domestic range	24 hours
7) inoperable commercial range/oven	3 hours
8) warm water supply outage to a housing unit or barracks	8 hours
9) air conditioning outage (domestic) - midsummer	36 hours
10) inoperable commode where other operable commodes exist	5 days
11) broken or defective windows/doors that compromise security	2 days

Once started, urgent work will continue until completed.

c. Routine: Routine work does not meet the category of emergency or urgent. This category covers required work which, if not accomplished, would only continue an inconvenience or unsightly condition. Work in this category will normally be accomplished on a first-come first-served basis. Every effort will be made to respond to and complete routine SOs within 30 days. As an exception, however, minor SOs requiring less than approximately four manhours which cannot be logically deferred until the next PM visit (see paragraph 6 below) and pertain to housing, dining, barracks, or operational facilities, will be accomplished within five working days whenever possible.

5. Unsatisfactory Work Accomplishment: Service orders that have been unsatisfactorily completed shall be redone correctly within five days of notification of the requirement.

6. Preventive Maintenance: Preventive maintenance (PM) is the systematic care, servicing and inspection of equipment, utility systems, buildings and structures, and

grounds facilities for the purpose of detecting and correcting incipient failures and accomplishing minor maintenance.

A PM team will visit your facility/quarters every 90 days to perform PM work. During the PM visit, the team may also accomplish very minor SOs previously requested. You will be advised of the exact date of a PM visit through publication in the daily bulletin. In addition, housing occupants will be advised of PM visits through information flyers. Should the scheduled PM visit pose difficulties, call telephone # (specify) and other arrangements can be made. Any work identified by the PM team as a deficiency but beyond its capability will be reported by the PM team to the DEH work reception office for accomplishment.

7. Work Evaluation: The DEH reviews the performance of service order work accomplished through random sampling techniques. In addition, customers are encouraged to contact our quality assurance branch at telephone # (specify) to express their satisfaction/dissatisfaction with work accomplished. Housing occupants will receive a questionnaire to answer voluntarily every time they are visited for SO or PM work. A franked, DEH addressed envelope accompanies the questionnaire to allow for easy return mailing.

8. Appointment Procedures (housing occupants only). Normally, visits to accomplish service order work (excluding emergencies and "very" urgent SOs) will be prearranged with the requestor. Prearrangement will be limited to half day time frames; i.e., 0800-1200 or 1200-1600.

9. Non-DEH Work: The DEH frequently receives requests to accomplish work outside its responsibility. The following is a list of the most common requests received of this type:

<u>Request</u>	<u>Responsible Office</u>	<u>Phone</u>
Cut vehicle keys	_____	_____
Repair furniture (excludes housing)	_____	_____
Telephone repair	_____	_____
TV antenna/cable/ reception problem	_____	_____
Wall mounted bulletin boards/charts	_____	_____
Personal name signs	_____	_____
Abandoned car		

removal

10. Questions or comments regarding any aspect of this policy should be called into phone # (specify).

NOTE: RESPONSE TIMES/TIME FRAMES IN THIS SAMPLE POLICY, THOUGH CONSIDERED A REASONABLE POINT OF DEPARTURE, ARE FOR DEMONSTRATION PURPOSES ONLY, AND MAY BE MODIFIED/EXPANDED/DELETED BY INDIVIDUAL INSTALLATIONS AS LOGIC AND THE SITUATION DICTATES. ABOVE ALL, RESPONSE TIMES/TIME FRAMES DETERMINED SHOULD BE RELIABLE. INSTALLATION COMMANDER APPROVAL OF THE INSTALLATION PRIORITY POLICY IS RECOMMENDED.

EXTERNAL RPMA REPORTING REQUIREMENTS FOR A PREDOMINANT CONTRACT ENVIRONMENT

CATEGORY I: External reports for which the Contractor submits all data or the completed report to the residual staff.

<u>REPORTS CONTROL</u>	<u>TITLE</u>	<u>REQUIRED BY</u>
(1) DD-M(A&AR) 1080	Pest Control Summary	AR 420-76
<u>CATEGORY II</u> : External reports the residual staff prepares without special input from the Contractor.		
(1) DD-M(SA)1167	Nonappropriated Fund Construction Report	
(2) ENG-288	Backlog of Main- tenance and Repair Obligations	AR 420-16
(3) ENG-126(R3)	Master Plans for Army Installations Basic Info & Future Dev.	AR 210-20 AR 415-36
(4) ENG-241	Master Plan for Army Installations Emerg Exp Capability	AR 210-23
(5) ENG-242	Inventory of Army Military Real Property	AR 405-45
(6) DD-M(A)670	Installation Natural Resources Report	AR 420-74
(7) DOI-1005	National Register of Historic Places	AR 200-1
(8) ENG-236	Bachelor Housing Cap & Util Report	AR 210-11

(9) ENG-240	Mil Const Army Pgm Documentation	AR 415-15	(25) DD-M(A)1529	Energy Conservation Investment Pgm (ECIP)	OASD Memo
(10) ENG-76(R3)	Army Leaseholding in Foreign Countries Separate from Installations	AR 405-45	(26) NO RCS	Timber Report of Availability	AR 420-74
(11) CONG 1159	Disposal of Structures As Related to Justification for New Construction	AR 415-13	(27) NO RCS	Agricultural Reports of Availability	AR 405-80
<u>CATEGORY III.</u> External reports for which the residual staff only provides feeder information to other installation activities, using in part information obtained from the Contractor.					
(12) DD-M(SA)1485	Environmental Mgt by Objectives Report	AR 200-1	(1) CSCFA-218	Status of Approved Operating Budget	AR 37-151
(13) CSRES-264	U.S. Army Reserve Facilities Assets Catalog and Tracking System	AR 140-480	(2) CSCAB-205, Schedules 2&3	Command Operating Budget (BMAR Prior Year Rpt)	AR 37 Series
(14) EPA-1001	Pollution Incident Report	AR 200-1	(3) 1106-GSA-QU	ADP Service Obtained from a Commercial Source	AR 18-7
(15) EPA-1002	Nat Pollutant Discharge Elimination System Discharge Monitoring Report	AR 200-1	(4) DD-A(Q)691	Administrative Space Report	AR 1-21
(16) 0176-EPA-AN	Safe Drinking Water Act	OSAD(MRA&L) Memo	(5) DD-COMP(AR)996	ADP/Mgt Info Systems	AR 18-3
			(6) DD-COMP(Q)1029	Proceeds and Expenses--Disposal Property and Lumber or Timber Products	AR 37-151
(17) ENG-304	Unconstrained Requirements Rpts	AR 420-16	(7) DD-I&L(A)1135	FHMA-Gen Officers Cost Report	AR 210-50
(18) ENG-237	Status of U.S. Army Instal Compliance with Nat Pollutant Discharge Elim System	AR 200-1	(8) DD-I&L(A)1219	Determination of Bachelor Hsg Rqmts	AR 210-11
(19) 0236-DOI-AN	Report on Cultural Resources Investigation	PL: Ltr DAEN-MPO-B 8 Sep 81	(9) DD-I&L(A)1230	Relocatable Buildings Report	AR 700-112
			(10) DD-I&L(AR)1313	Def Energy Info Systems (DEIS-I-DEIS II)	AR 11-27
(20) DD-I&L(AR)1327	Env Impact Assessment	AR 200-1	(11) DD-M(A)1344	Fin Mgt of NAF and Related Approp. Resources	
(21) DD-I&L(SA)1383	Environmental Pollution Prevention Control and Abatement Report	AR 200-1	(12) CSCOA-24	NAF Financial Rqmts	
(22) DD-M(A)1275	Acquisition & Disposal of Real Property	AR 405-80/90	(13) CSCFA-221	Stat of Oblig Exp & Disbursements	AR 37-112
(23) DD-I&L(AR)501	Report of Cost and Analysis - Bldgs, Liquid Fuel Facilities & Paving	AR 715-17	(14) CSCFA-262	Standard Finance System (STANFINS)	OSA Memo 2 Oct 70
(24) ENG-303	Budget & Support Material for Wildlife Conservation, Mil Reservations Budget	DA Cir 420-81-1	(15) CSCOA-10(R1)	QRIP	AR 5-4
			(16) CSCFA-217(R1)	Fam Hsg Operation & Maintenance Costs	AR 37-151
			(17) CSCFOR-78(R2)	Manpower Utilization & Requirements	AR 570-3

(18) CSGLD-1759	Equipment Survey Report	AR 570-7	(41) CSOCS-283	Commercial Activities Program Evaluation	Memo OASD (IL&FM)
(19) CSGPA-147(R4)	Accident Report	AR 385-40	(42) ENG-162	Receipts & Expenses-Woodlands Mgt Pgm	AR 210-20/415-36
(20) CSGPA-646(R2)	Summary of Accident Exposure	AR 385-40	(43) NO RCS	Quarterly Report of Non-Reimbursable Support to MWR Pgm (Completed by F&A)	AR 37-100-XX
(21) 1146-DOL-XX	Summary Report of Occup Illness & Injury	AR 385-40	(44) NO RCS	Quarterly Report of OSHA Obligations	AR 37-100-XX
(22) CSGPA-1302	Manpower Survey Rpt	AR 570-4	(45) CSGLD-1042(R3)	Material Condition Status Reporting	TM 38-750
(23) CSGPA-1340(R1)	Serious Incident Rpt	AR 190-40	(46) CSGLD-1052(R3)	Comp Removal, Repair & Overhaul Record	TM 38-750
(24) CSGPO-375	TAADS	AR 310-49	(47) CSGLD-1713(R1)	Material Assistance Designated Report	AR 700-98
(25) CSGLD-1608	Equipment Control Record	AR 710-3	(48) CSGLD-1841(R2)	Manual Procedures Unit Loss	DA Cir 710-81-1
(26) CSGLD-1649(R2)	Laundry & Dry Cleaning Operation	AR 210-130	(49) MTMC-54(R1)	Discrepancy in Shipment Report	AR 55-38
(27) AG-749	Copier Cost + Production Report	AR 340-20	<u>CATEGORY IV.</u> Plans that the residual staff must prepare using, in part, information obtained from the Contractor. The following are representative examples of these plans:		
(28) AG-751	Word Processing System Prod Report	AR 340-8			
(29) AG-752	Word Processing Equip Inventory	AR 340-8			
(30) CSOCS-234	User Rqmts for ADP Products-Cmts/Recommendations				
(31) CSOCS-235	Periodic Review of Mgt Info Rqmts + Products Schedule		(1)	Forest Management Annual Work Plan (AR 420-74)	
(32) CSOCS-236	Periodic Rev of Mgt Info Rqmts-Prep Agency Cmts		(2)	Fish and Wildlife Annual Work Plan (AR 420-74)	
(33) MTMC-74	Highway System Needs	AR-55-80	(3)	Natural Resources Mgt Plans (AR 420-74 & AR 420-6)	
(34) MTMC-75	Access Road Needs	AR 55-80	(4)	Resources Management Plan (AR 420-17 & DA Pam 420-6)	
(35) MTMC-76	Maneuver Road Condition Report	AR 55-80	(5)	Installation Master Plans (AR 210-20)	
(36) MTMC-98	Traffic Engineering Needs	AR 55-80	(6)	Installation Spill Contingency Plan	
(37) AAFES-55	Long Range Capital Expenditures Pgm	AR 60-31	(7)	Air Pollution Emergency Episode Plan	
(38) ENG-234	Improvements to Existing Public Quarters	AR 210-50	(8)	Cultural Resources Mgt Plan	
(39) DD-I&L(A)1134	Fam Hsg Category & Summary Reports	DODI 7220.16	(9)	Installation Facilities Energy Plan (AR 11-27)	
(40) DD-M(A)1507	Domestic Base Factors Reports	Memo OASD (MRA&L)	(10)	Mgt of Fire Prevention and Protection Pgm (DA Pam 420-2)	
			(11)	Installation Hazardous Waste Management Plan (AR 420-47)	

C.7 Functional Area Tasks and Standards:

NOTE TO WRITER:

a. All Contractor-provided services shall meet applicable standards specified herein, including the Performance Requirements Summary Table(s), applicable Government regulations, codes, or directives to include applicable equipment specifications and manufacturers' instructions and recommendations related to the equipment receiving the services, and inclusive of equipment or vehicles, supplies, parts, or materials utilized to provide the required services.

b. Sample PWS statements are provided below for the following functional areas:

(1) Ford Service Equipment Maintenance and Repair (C.7.1)

(2) Custodial Services (C.7.2)

(3) Pest Control (C.7.3)

(4) Refuse Collection and Disposal (C.7.4)

(5) Fire Prevention Equipment Maintenance and Repair (C.7.5)

(6)* Operation, Maintenance, and Repair of Electrical Plants and Systems (C.7.6)

(7) Operation, Maintenance, and Repair of Heating Plants and Systems (C.7.7)

(8)* Operation, Maintenance, and Repair of Water Plants and Systems (C.7.8)

(9)* Operation, Maintenance and Repair of Wastewater Plants and Systems (C.7.9)

(10) Operation, Maintenance, and Repair of Air-Conditioning and Refrigeration Plants and Equipment (C.7.10)

(11) Maintenance, Repair, and Minor Construction, Buildings and Structures (C.7.11)

(12)* Grounds Maintenance, Improved and Unimproved (C.7.12)

(13) Maintenance, Repair, and Minor Construction, Surfaced Areas (C.7.13)

(14) Railroad Maintenance, Repair, and Minor

Construction (C.7.14)

(15) Housing Operations (C.7.15)

*NOTE TO WRITER:

a. USAEHSC has developed the following Service Contract Guides which contain additional information and PWS descriptions:

DEH - Electrical Plants and Systems Service Contract Guide, Guide Number G-6

DEH - Water Plants and Systems Service Contract Guide, Guide Number G-8

DEH - Wastewater Plants and Systems Service Contract Guide, Guide Number G-9

DEH - Grounds Maintenance Service Contract Guide, Guide Number G-12

b. USAEHSC has developed a more detailed guide for SECTION E, titled Developing Quality Assurance Surveillance Plans for DEH Commercial Activities Contracts, Guide Number S-25.

c. The above guides may be requested as a hard copy or diskette from:

Director
U.S. Army Engineering and Housing
Support Center
ATTN: CEHSC-FM-M
Fort Belvoir, Virginia 22060-5516
DSN - 654-1565
Commercial - (703) 704-1565

C.7.1 FOOD SERVICE EQUIPMENT MAINTENANCE AND REPAIR:

C.7.1.1 Scope: The Contractor shall provide all work and services required to maintain, install, remove, and repair all installed food service and food service-related equipment. The term "food service-related equipment" includes all items supporting the preparation, processing, serving, and disposal of foods such as garbage disposal, washing, and ventilating equipment and hoods. The Contractor's work and responsibility includes inspection, scheduling of work, installing, maintaining, and repairing food service equipment, establishing and conducting user training, and all related services as necessary to the equipment maintenance and repair functions.

NOTE TO WRITER: The following documents are applicable to food service equipment maintenance and repair services. Consolidate as applicable.

<u>No.</u>	<u>Title</u>
AR 30-1	Army Food Program (Sec IV)
AR 420-55	Food Service and Related Equipment
TM 5-636	Kitchen Equipment Repair and Utilities
TM 5-640	Ranges, Bake Ovens, and Burners for Mess Equipment Repairs and Utilities

Manufacturer's Technical Manual for each item of equipment (specify).

Food and Drug Administration Standards (specify)

National Sanitation Foundation Standards (specify)

Underwriters Laboratory Standards (specify)

NOTE TO WRITER: The installation should obtain manufacturers' technical manuals for food service equipment from the food service advisor or the DEH. If manuals are not available at the local installation, request assistance from: Commander, US Army Troop Support Agency, ATTN: DALO-TAF, Fort Lee, VA 23801. Include with any request all information on the equipment data plate. Any requirements for mobile kitchen (TOE equipment) should be inserted.

C.7.1.2 Contractor Response: Food service operations have a direct effect upon the health, safety, welfare, and morale of personnel using the food service facilities. The Contractor shall provide a preventive maintenance program designed to preclude any deterioration of food service operations caused by inoperable food service equipment.

C.7.1.3 Inspection: The Contractor shall conduct monthly inspections and determine the general condition of the equipment, effectiveness of preventive maintenance, and need for additional instruction or training of users and maintenance personnel. Inspection reports shall be provided in writing to the Contract Officer (specify frequency).

C.7.1.4 Preventive Maintenance (PM): The Contractor shall schedule and perform PM services such as checking thermostats; tightening nuts and bolts; removing dirt and grease from switches and contacts; checking doors for proper fit; lubricating moving parts; checking for leaks; and checking to see if equipment is level. The Contractor shall comply with maintenance instructions provided by the equipment manufacturer or the Government's food service directives/manuals and establish

a schedule for regular performance of preventive maintenance and maintain records of work accomplished.

C.7.1.5 Repairs: The Contractor shall repair or replace all damaged and defective parts. Repair includes electrical and plumbing work as it pertains to the equipment.

NOTE TO WRITER: Repair Limits: Food service equipment is subject to repair limits as specified in AR 420-55. If an item is determined by the Contractor to be beyond economical repair, the Contractor shall recommend to the Contracting Officer in writing that such equipment be replaced. If the Contracting Officer decides that such equipment should be repaired and repair is ordered IAW ordering provisions, SECTION H, the Contractor will be reimbursed for costs exceeding the repair limit, notwithstanding any Contractor responsibility established for Work Level I. Repair limits are also describe in the Federal Property Management Regulations (FPMR) or other documents for the specific items of equipment. Writers not familiar with these documents should contact appropriate and knowledgeable maintenance personnel, prior to developing repair criteria requirements. Also see appendix C of part IV of the Supplement to OMB Circular A-76.

C.7.1.6 Ventilation Hoods: The Contractor shall inspect, clean, and fireproof ventilation hoods and ductwork once every (specify frequency) IAW NFPA Standard 96, section 113.(1), and check correct operation of other associated items to include alarms, smoke/fire dampers, and fire suppression devices.

C.7.1.7 Utility Connections: The Contractor shall maintain the following: (Where repairs to utilities are performed only by public facilities, specify the Contractor's responsibilities. Insert any requirements for the Contractor to install new circuits, lines, etc., for new equipment).

- a. Electrical power distribution system/circuits.
- b. Steam lines.
- c. Sewer lines.
- d. Gas distribution system.
- e. Water supply system.

C.7.1.8 Installation and Removal of Food Service Equipment: The Contractor shall perform all installation and removal functions.

- a. The Contractor shall inspect and insure that new equipment has the correct utilities characteristics for available

circuits prior to its installation.

b. The Contractor shall assemble and install new equipment according to the manufacturer's instructions for preparation and installation. When completed, no leakage shall occur and all doors shall open easily and have a tight fit. The unit shall be level and all assembly bolts tight.

c. The Contractor shall connect newly installed equipment with utility service as appropriate to the item of equipment. The Contractor shall install ventilation hoods IAW (specify). The Contractor shall ground all electrically operated equipment. CAUTION: Care must be taken at wet locations to prevent possibility of electrical shock or electrocution of maintenance or other personnel.

d. The Contractor shall perform startup inspection and services before new, reconditioned, or inactive food service equipment is placed in service. The Contractor shall inspect all gas or water lines and correct all deficiencies.

e. The Contractor shall perform shutdown services to protect equipment that is inactivated or placed on standby use. Work shall include inspection and service of equipment to insure it is safeguarded, protected against deterioration, and in operational standby condition.

f. The Contractor shall provide a supporting statement (justification) to accompany requisitions or recommendations to purchase new and replacement equipment. The Contractor shall insure that:

(1) The piece of equipment recommended to be replaced is not economically repairable.

(2) Utility services are available to operate the specific item of replacement equipment.

(3) Equipment recommended will fit in the available space and perform the required function.

C.7.1.9 Fire Protection and Safety: The Contractor shall perform the following fire protection and safety enforcement functions in conjunction with fire prevention and protection services described in C.7.5. (Rework, if fire protection and prevention is not included in the final PWS.)

a. The Contractor shall install cooking equipment IAW NFPA Standard 96, section 10.

b. The Contractor shall insure that all deep fat fryers conform with NFPA Standard 96, section 112.

c. The Contractor shall inspect, test, and certify in writing, that microwave ovens are safe to operate, and conform with UL Standard 923-81 and FDA Standard-AAMI Nov. 28, 1980.

NOTE TO WRITER: Consolidate the following items in general tasks (see C.6.)

C.7.1.10 Efficient Use of Energy: The Contractor shall provide for efficient use of energy by performing the following functions in conjunction with the energy program described in C.6.18. (If incorporated in C.6.18, slight rewording could include all installation equipment.)

a. The Contractor shall determine the most efficient energy source at the time of major equipment replacement or upon alteration of an existing facility. The Contractor's recommendations shall be based on the lowest life-cycle cost alternative for the equipment application.

b. The Contractor shall, when applicable, recommend acquisition of the most efficient food service equipment according to its energy efficiency.

c. The Contractor shall, when approved by the Contracting Officer and IAW C.7.7, install energy recovery equipment (e.g., rotary air-to-air heat exchangers, static heat exchangers, heat pipes, and runaround systems) to reduce the cost of heating dining facilities. (Include any responsibility for the Contractor to install on own initiative, as approved by the Contracting Officer, etc. The solicitation and contract should provide incentives for the Contractor to share in cost savings due to the Contractor's energy conservation efforts.)

NOTE TO WRITER: Consolidate training for all functions in one general requirement (see C.6). Normally, training of Contractor personnel should be totally Contractor responsibility and should not be stated. The following statements should be considered, consolidated, and used when necessary:

C.7.1.11 Training: The Contractor shall perform the following training functions:

a. The Contractor shall establish and conduct training/ refresher courses to instruct Government equipment users in energy conservation and in the operation and preventive maintenance of food service and food service-related equipment. Training shall be conducted an estimated (specify) times per year. (Each installation must determine the level of instruction required.)

b. The Contractor shall prepare and issue licenses/certificates to Government equipment operators upon satisfactory completion of the food service equipment course. Signature, by a designated Government official, is required prior to issue. Students must have demonstrated understanding of the subject matter before the certificate is prepared and awarded. An estimate of (specify) students will require training each contract year.

C.7.1.12 Administration and Work Coordination: The Contractor shall perform the following administration and work coordination functions:

NOTE TO WRITER: Consolidate all administration and work coordination into one general requirement (see C.6.). For this function, consider the following:

a. Meet weekly, or as otherwise necessary, with other activity chiefs and personnel responsible for RPMA to schedule and coordinate work.

b. Schedule routine maintenance so as not to interfere with serving hours at dining facilities. Serving hours are (specify).

NOTE TO WRITER: Consolidate the following reports and identify the reports to the individual function (see C.6.3 and notes to writer following C.6.22).

a. Annual Inspection Report:

Frequency: Once yearly.

Date of Submission: 30 days following contract award date (or other date, as applicable). Update each month not later than (specify) workday of the month.

b. Annual Schedule of Work:

Frequency: Once yearly.

Date of Submission: Within 30 days after contract award date (or on other date). Update each month not later than (specify) workday of the month.

c. Detailed Monthly Schedule of Work:

Frequency: Every month by 21st day of preceding month.

d. Work Schedule Revisions:

Frequency: As required.

e. Contractor Employees on Call for Emergencies:

Frequency: On contract start date and as required to keep list current.

f. Justification Statement for New Equipment:

Frequency: As required.

g. Records of Expendable Supplies:

Frequency: As required, and upon completion or termination of contract.

h. The Contractor shall keep records on each piece of food service equipment listed in the contract during the contract term, to include any extension of term. The records, DA Form 4177, shall contain the following information:

- (1) Equipment identification.
- (2) Location of equipment.
- (3) Date, cost, and description of each repair.
- (4) Date of each PM check.
- (5) Date equipment was put in service.

C.7.2 Custodial Services:

C.7.2.1 Scope: The Contractor shall schedule and perform (specify frequency) cleaning, removal of trash and debris, vacuuming, mopping, waxing, buffing, dusting, spot cleaning, snow removal around building, or other service required to maintain all areas to specified standards. All areas shall present a uniform appearance and finish after servicing. All waxes used must be of a nonskid nature.

NOTE TO WRITER: The following documents are applicable to custodial services. Consolidate as applicable.

<u>No.</u>	<u>Title</u>
AR 420-81	Custodial Services
TM 5-609	Custodial Services

C.7.2.2 Schedules: The Contractor shall schedule services to provide that all work and services on a (specify frequency) are accomplished to meet standards specified. The contractor shall establish frequencies, except where specified by the Contracting Officer, and perform all work necessary to meet all appearance and cleanliness standards as specified. All schedules shall be

submitted to the Contracting Officer for review and approval.

a. Equipment and Tools: Contractor-furnished equipment, tools, and supplies utilized for custodial services shall meet the following minimum standards:

(1) All Contractor-furnished mechanical equipment and tools shall have bumpers and guards to prevent marking or scratching of fixtures, furnishings, or building surfaces.

(2) Electrical equipment used by the Contractor shall meet all safety requirements as specified in (specify). The equipment must operate using existing circuits. The Contractor shall prevent operation, or attempted operation, by Contractor's employees of equipment which require electrical power exceeding the capacity of existing circuits.

(3) All vacuum cleaners used on carpeted floors shall be of a beater bar type. (Delete this requirement, if not needed, as the Contractor is responsible for any damage caused by his equipment.)

b. Plastic Trash Can Liners: The Contractor shall furnish plastic trash can liners for each trash can. Thickness shall be not less than (specify) mil.

c. Restroom Supplies: The Contractor shall furnish samples of all restroom supplies or materials to the Contracting Officer for review (specify) days prior to contract start date and whenever a change occurs. Failure to provide required supplies in the quantity, quality, and in a manner which will preclude depletion, prior to restockage, shall be unsatisfactory performance. The following materials shall meet or exceed the quality indicated by the following Federal Specifications (estimate quantities to be furnished):

<u>Item</u>	<u>Federal Specification</u>
Toilet Tissues	UU-P-556
Paper Hand Towels	UU-T-591
Soap	
Hand	P-S-620
Liquid	P-S-624
Powder	P-S-620
Deodorant	
Urinals	P-D-215
Toilet Bowls	P-D-215

d. Mats: The Contractor shall furnish mats for all exterior entries to prevent excessive soiling of building interiors (specify minimum acceptable standard).

C.7.2.3 General: The Contractor shall perform all cleaning

tasks, to include removal of trash or debris (except debris caused by construction which is it construction Contractor's responsibility), mopping, sweeping, dusting, spot cleaning, provision of supplies, damp cleaning, polishing, policing, and disinfecting of all surfaces of restrooms (insert any other areas which require disinfecting) IAW the following standards:

a. Trash: All waste receptacles, to include wastebaskets, cigarette butt containers, other trash containers more than (specify) full and any box, cans or papers nearby and marked "TRASH" shall be emptied and trash or debris removed daily. Soiled or torn plastic liners shall be replaced. All trash or debris, falling on the facility or grounds during the trash removal process, shall be picked up and removed. CAUTION: Ashes and debris from cigarette butt containers should be placed in noninflammable containers for removal.

b. Mopping: Wood floors shall not be mopped. All mopped areas shall have a uniform clean surface free of mop strands, litter, dust, streaks, swirl marks, detergent residue, or evidence of soil, stains, film, water and no splash marks on furniture, walls, including baseboards, or other equipment or items.

c. Sweeping: All floors cleaned by sweeping shall be free of litter, dust, and foreign debris.

d. Dusting: All dust, litter, lint, or soil shall be removed from all surfaces of furniture, walls, blinds, and unless specifically excepted, office equipment. At the Contractor's option, and except where damage to items would occur from its use, a dusting solution may be used to saturate dust mops or rags to facilitate removal of dust.

e. Spot Cleaning: All washable surfaces shall be free of smudges, fingerprints, marks, streaks, etc. Spot cleaning of carpets or rugs, to remove soiled spots or stains of two (2) square feet or less in diameter, shall be the Contractor's responsibility and cost. (See AR 420-70 is a requirement exists for shampooing or steam cleaning rugs.)

f. Vacuuming: All rugs and carpet shall be free of all visible litter and soil. Tears, burns and raveling shall be reported to the Contracting Officer not later than the end of the day observed. Privately owned rugs or carpets shall be vacuumed; however, no other service will be performed. (Identify private rugs/carpets by location on

maps, drawing, etc.). (See AR 420-70 regarding time intervals for vacuuming.)

g. Waxing and Buffing: All waxed floors shall have a uniform glossy appearance, to include the floor underneath easily tilted or movable items. The floor shall be free of scuff marks, heel marks, stains and discolorations, and have a nonskid surface. Buildup of wax will not be acceptable. All floor maintenance solutions shall be removed from baseboards, furniture, or other furnishing and equipment. Waxing and buffing includes dry buffing, spray buffing, stripping, and waxing.

h. Windows: Window frames, sills, casings, and transparent surfaces shall be free of all traces of film, dirt, smudges, water, streaks, or any foreign matter. (Specify interval/external, etc.)

i. Restrooms: A germicidal agent shall be used to clean and disinfect all fixtures daily. Bowls, urinals, commodes, etc., including all orifices and drains, shall be free from streaks, stains, scale, scum, urine, deposits, and rust stains. Walls and surfaces shall be maintained, cleaned, washed, rinsed, and dried (specify time frames). The Contractor shall insure that Contractor personnel do not enter a restroom occupied by a person of the opposite sex.

j. Light Fixtures: All light fixtures, including side panels, louvers, egg crates, plastic or glass covers, frames, lamps, fluorescent tubes, globes, etc., shall be free of bugs, dirt, grease, or other foreign matter.

k. Glass and Shelving: All glass partitions, shelving, glass doors (interior/exterior), display cases, directory boards, draft shields on windows, mirrors, and all adjacent trim, etc., shall be free of film, dirt, smudges, water, streaks, or foreign matter.

l. Drinking Fountains: A germicidal agent shall be used to clean and disinfect all drinking fountains daily. All porcelain and polished metal surfaces shall be disinfected, including orifices and drains, and the entire drinking fountain free from streaks, stains, spots, smudges, scale, soil, or other foreign matter.

m. Vending Machines: The area surrounding vending machines shall be clean. All empty bottles or empty containers shall be placed in a rack or other container provided. The area surrounding such machines shall be kept neat and orderly.

n. Grounds: Interior courts, grounds, and sidewalks of the installation shall be policed. The area shall be free of trash, refuse, debris, paper, empty bottles or cans. Attachment

(specify) establishes limits of responsibility for policing of grounds.

o. School Policing: Restrooms, hallways, corridors, stairs, and tops of cabinets or wall lockers shall be free of litter or debris. Schools shall be maintained in an orderly manner. (Insert any maintenance to be performed during school vacation periods.)

p. Snow Removal: Walks and entrances of all buildings and structures receiving custodial services shall be clean. They shall be free of ice or snow and safe for pedestrian traffic. (Estimate frequency of requirement.)

C.7.2.4 Work Schedule: The Contractor shall prepare, and submit to the Contracting Officer for review, a custodial work schedule for a period covering one (1) year. This schedule shall provide a program to accomplish all custodial services. The schedule shall be updated, as required, and submitted for review by the Contracting Officer. The schedule shall include a detailed working schedule and will conform with the Contractor's QC program.

C.7.3 PEST CONTROL:

NOTE TO WRITER: Prior to soliciting offers for pest control services, the cognizant Professional Pest Management Personnel (PPMP) must approve by his signature, all pest control specifications. This signature must be on the cover (or front) page of the pest control specifications. The installation must determine whether the work, other than routine, will be firm fixed price or reimbursable and ordered only as needed or a combination of the two. The writer must utilize the DOD Armed Forces Pest Management Board model PWS for pest control services as a guide for development of this requirement. The requirement must reflect the total pest management program. A Government employee, call "Pest Control Manager," will normally be retained as a member of the Government residual staff to manage the total program (but will not direct a Contractor) as approved by the MACOM PPMP. The DOD model PWS may be obtained from USAEHSC by calling the Publications Coordinator at DSN 654-1565 or (703) 704-1565. (Ref. AR 420-76)

C.7.4 REFUSE COLLECTION AND DISPOSAL:

C.7.4.1 Scope: The Contractor shall schedule and perform all refuse collection and disposal services. The Contractor shall conduct scheduled (specify frequency) services to collect, remove, and dispose of all refuse at (specify location of authorized landfill). All areas which are involved in the collection and disposal services shall be maintained by the Contractor in a neat, clean, uniform, and safe condition as all times.

NOTE TO WRITER: The Solid Waste Disposal Act requires Federal agencies to procure solid waste disposal services from the local government, if the local government requires its services to be used.

NOTE TO WRITER: The following documents are applicable to Refuse Collection and Disposal. Consolidate as applicable.

<u>No.</u>	<u>Title</u>
TM 5-634	Refuse Collection and Disposal Repairs and Utilities
ANSI Z245.1	Safety Requirements for Refuse Collection and Compaction Equipment
40 CFR 117	List of Hazardous Materials
40 CFR 243	Guidelines for Solid Waste Storage and Collection
40 CFR 241	Landfill Disposal of Solid Waste
40 CFR 257	Criteria for Classifications of Solid Waste Disposal, Facilities and Practices
40 CFR 260-271	Hazardous Waste Management Systems: General

NOTE TO WRITER: The following definitions are applicable to refuse collection and disposal services. Consolidate definitions as applicable.

- a. Bulky Items: Lumber, pipe, or debris exceeding three (3) feet in length, two (2) feet by two (2) feet square or two (2) feet in diameter, and concrete blocks, ice boxes, refrigerators, deep freezers, ranges, bedsprings, sofas, water heaters, water tanks, sinks, and tree stumps.
- b. Hazardous Wastes: Waste materials that are toxic, poisonous, corrosive, irritating, sensitizing, radioactive, biologically infectious, explosive, or flammable and that present a

significant hazard to human health and the environment. Special-handling procedures and disposal facilities are required for their disposal. Hazardous wastes, as defined by Federal Standards 313A, (Environmental Protection Agency Federal Regulations) shall be handled IAW EPA, State Department of Health, and Department of Transportation procedures (specify where found).

c. Recoverable Resources: Materials such as metal scrap, scrap lumber, crating materials, empty barrels, boxes, textiles, and bags, waste paper, cartons, kitchen waste, and similar materials which retain useful, physical, chemical, or other property which retains reclaimable, recycling, salvage or salable value. (The installation will list those items to be turned into the DRMO and are subject to accountability.)

d. Vector: A carrier that is capable of transmitting a pathogen from one organism to another.

e. Garbage: Soiled or waste food, as from a market or kitchen, etc., that is thrown away. Any worthless, unnecessary, or offensive organic matter to include any original container within which such garbage remains exist.

C.7.4.2 General: The Contractor shall develop and provide for review by the Contracting Officer a service plan to cover all work to be performed. The plan shall include one (1) bulk pickup day per week and procedures for special events.

a. Landfill Operations: The Contractor shall operate and maintain a (specify) acre sanitary landfill as shown in attachment (specify). The fill shall be maintained to assure that waste material is dumped at the proper site, that at least six (6) inches of dirt is applied to the working area each day, that unauthorized personnel are prohibited entry, that salvageable or salable material is returned to salvage collection points, and that scavenging of material is not allowed. The area, if controlled by a fence or locked gate shall be locked after each day's operation. The fill shall be operated IAW AR 420-47, and State and local (specify) regulations. (Describe the State permit requirements).

b. Sanitary Landfill Maintenance: The Contractor shall comply with State and local laws and shall perform the following sanitary landfill maintenance services:

- (1) Dig trenches as shown in attachment (specify), using heavy equipment, and bury an estimated (specify) tons of solid waste monthly.
- (2) Transport an estimated (specify) tons of fill dirt in order to backfill trenches containing solid waste material from (specify area).

(3) Provide vegetative cover on completed areas of the landfill (specify type).

C.7.4.3 Services: The Contractor shall collect all refuse and dispose of the refuse (specify location). The Contractor shall insure that collection and disposal is accomplished in an efficient, safe (define safe), and effective manner. (Specify the time of day or night.) (Indicate area to be picked up, number of collection stations, family housing areas, number of trash cans, etc. State minimum frequency if applicable.)

C.7.4.4 Maintain Facilities, Equipment, Material and Supplies: The Contractor shall maintain all facilities, equipment, material, and supplies, whether furnished by the Government or by the Contractor. The Contractor shall maintain all items in an operationally safe, serviceable condition at all times. All items shall be maintained in a neat, clean, vector-free condition. The Contractor shall clean all Government-provided containers.

C.7.4.5 Packer-Type Trucks: Bodies of packer-type trucks utilized by the Contractor shall be leak proof and fully enclosed. Controls to activate the compacting apparatus shall be located where the operator has a clear view of the inside of the packer body. Controls inside the cab will not be acceptable except for front-end loader types. When equipment is utilized to collect refuse containing garbage, malodorous or unsanitary material, it shall be maintained in a clean and sanitary condition at all times while on the installation.

C.7.4.6 Other Trucks: Other trucks, including bodies, used by the Contractor for hauling refuse shall be cleaned and sanitized at least once per month. In any event, the vehicles shall be maintained in a neat, clean condition at all times to prevent propagation or attraction of vectors. All vehicles utilized by the Contractor shall be in compliance with ANSI Z245.1.

C.7.4.7 Design: All refuse collection vehicles used by the Contractor shall be specifically designed for the purpose and be compatible with the bulk containers utilized. The only exception is vehicles which are specifically used to haul ashes and bulk refuse. Excepted vehicles shall be covered by a canvas or other suitable cover which shall provide that refuse shall not fall out during any moment of the vehicle.

C.7.4.8 Container Cleaning: All Government or Contractor-furnished refuse containers shall be maintained by the Contractor and shall be cleaned and sanitized inside and out (specify frequency). Containers with liquid sumps shall be cleaned each time emptied. The containers shall be cleaned to prevent propagation or attraction of vectors.

C.7.4.9 Falling/Windblown Debris: All refuse falling during removal operations shall be picked up and removed by the Contractor. All refuse within (specify) feet of collection points, to include windblown debris, shall be picked up and removed. The Contractor shall maintain all collection points in a neat, clean, uniform, and sanitary condition.

C.7.4.10 Vehicle Routes: The Contractor shall establish vehicle routes, using gates (specify) for entry to and exit from the installation. The route schedule shall be included in the Contractor's service plan. Areas or points of unusually heavy refuse generation may require more than one (1) pickup per day. (Estimate number of times more than one (1) pickup will be required.)

NOTE TO WRITER: The following should be inserted based upon installation need. Include ANSI standards for containers and compactors.

a. Containers: The Contractor shall furnish containers at sites indicated (specify). Containers furnished by the Contractor shall be leak proof. Bulk-type containers furnished by the Contractor shall be compatible with the hoisting mechanism of the Contractor's collection vehicles, in a fully serviceable condition (no defects), and if mounted on wheels, shall have a positive braking/locking device to prevent inadvertent movement.

b. Wash Racks: Wash racks furnished by the Government shall be clean and free of debris at the end of each day's operation. The Contractor shall clean the racks after Contractor use. Washing shall be performed in a manner to preclude contamination or pollution of the surrounding area.

c. Repainting: The Contractor shall paint all Government-furnished refuse containers. The Contractor shall schedule painting to provide that not less than (specify) of the containers are painted each contract year, or more often if

necessary, to insure that the containers are maintained in an acceptable and fully operational condition. Painting shall be accomplished only after the container has been cleaned to remove all foreign matter, to include rust down to clean bright metal. All surfaces shall receive a complete hiding (coat) of paint and be allowed to dry not less than 24 hours prior to further painting. The container shall then receive, on exterior surfaces only, one (1) complete coat of "enamel, alkyd, semigloss, color number (specify), Federal Specification TT-E-529." Each completed container shall be inspected by the Contracting Officer to insure conformance with specifications. Spot painting, when necessary, shall be conducted in the same manner. All nomenclature found on the container shall be restenciled on the repainted container using color number (specify) conforming to Federal Specification TT-P-98. (Specify any standards, painting, maintenance, etc., for Contractor-furnished containers.)

d. Salvage or Salable Material: The Contractor shall establish a program to collect and hold for later disposal, all salvageable and salable material. The Contractor shall not dispose of material which has value and is listed in (specify). Collection points have been established at (specify).

NOTE TO WRITER: A resource recovery and recycling program at each post is encouraged by higher headquarters. The installation should include any requirements for the Contractor to collect newspapers, etc., for this purpose. However, such programs are usually net losses of OMA funds necessary to run the program. A method for handling sales must be established and who will receive proceeds must be determined, etc.

e. Multiple Refuse Container Repairs: When Government-furnished multiple refuse containers are damaged by other than the refuse Contractor they will be repaired by the Contractor only when ordered by the Contracting Officer IAW ordering provisions contained in SECTION H. Repair, replacement, and installation shall be IAW recommended standards of the container manufacturers. The Contractor shall furnish all labor, materials, and plant necessary to perform the repair or replacement.

NOTE TO WRITER: Considerable administration, inspection, effort, etc., could be saved by requiring the Contractor to repair regardless of normal wear and tear. Consider the following. Break out the initial and all option years.

<u>Item</u>	<u>Estimated Quantity</u>
(1) Replace bottom sump gaskets. Approximately (specify) % of the containers will be repaired during the contract. New gaskets will conform to those recommended by the manufacturer of the multiple refuse containers.	_____ (specify)
(2) Replace top door lid.	_____ (specify)
(3) Replace counterbalance springs on top door lid.	_____ (specify)
(4) Replace counterbalance spring and hinge assembly, complete, on top door lid.	_____ (specify)
(5) Replace latch for top door.	_____ (specify)
(6) Replace spring for top door latch.	_____ (specify)
(7) Replace latch assembly, complete for top door.	_____ (specify)
(8) Replace latch for side door.	_____ (specify)
(9) Replace spring for side door latch.	_____ (specify)
(10) Replace latch assembly, complete for side door.	_____ (specify)
(11) Miscellaneous welding necessary for minor repair other than welding required to perform the above listed repairs or replacements.	_____ (specify)

NOTE TO WRITER: Consolidate report requirements. Identify to function. Reports applicable to this function are:

DA Form 3916 Daily Log Trip Report (AR 420-47)

DA Form 3917 Monthly Collection Date (AR 420-47)

C.7.5 FIRE PREVENTION EQUIPMENT MAINTENANCE AND REPAIR:

C.7.5.1 Scope: The Contractor's work shall include inspections, extinguisher, alarm and sprinkler maintenance and repair. All fire services shall be scheduled and performed by the Contractor IAW applicable National Fire Protection Association (NFPA) codes, International Fire Service Training Association (IFSTA) manuals, Occupational Safety and Health Administration (OSHA) Standards, Department of the Army regulations, staffing standards, TMs, and other applicable (specify) publications listed in (specify). An annual work schedule shall be prepared by Contractor IAW DA Pam 420-2. This schedule shall be submitted to the Contracting Officer for review and approval 30 days prior to commencement of work date and annually 30 days prior to start of each Fiscal Year of contract option term.

C.7.5.2 Description of Facilities: Contractor duties shall include inspection and maintenance of (specify) fixed and (specify) portable fire extinguishers, (specify) fixed extinguishing system in (specify) facilities, and (specify) alarm system in (specify) facilities. Work and services shall include all work and services related and associated with fire protection.

NOTE TO WRITER:

a. Overall supervision of fire prevention programs should remain a Government in-house responsibility (Ref. Public Law 100-370, section 2465).

b. Fire prevention inspections of facilities should be included in the work statement for cost study, with surveillance by Government quality assurance inspectors.

c. Fire protection equipment and systems may be inspected and tested by qualified Contractor personnel, with surveillance by Government quality assurance inspectors. Maintenance should be included in the work statement for cost study.

NOTE TO WRITER: The following documents are also applicable to fire protection services. Consolidate and code the documents as applicable to the installation.

<u>No.</u>	<u>Title</u>
TM 5-695	Maintenance of Fire Protection Systems
Mil Handbook 1008	Protection for Facilities Engineering Design and Construction
TM 5-813-6	Water Supply for Fire Protection
DA PAM 420-2	Management of Fire Prevention and Protection Program
DOD 4270-1-M	Construction Criteria Manual
DODI 6055-6	DOD Fire Protection Program
IFSTA Manuals Volumes I & II	Methods Manual (Vol I) and General Manual (Vol II)
National Fire Codes:	National Fire Protection Association (NFPA)
Volumes 1-18:	Codes and Standards

OSHA Standard, 29 CFR Occupational Safety and Health Act (OSHA) Part 1910

C.7.5.3 Fire Prevention Services: The following services and format should be considered for developing fire prevention tasks:

- a. Inspections (Number)
- b. Fire Prevention Criteria
- c. Frequency of Facility Fire Inspections
- d. Frequency of Fire System's Inspections (Number)
- e. Notification and Records of Inspections
- f. Correction of Fire Hazards
- g. Reference Library (List Specific References)
- h. Review and Approval of Building Plans and Alterations
- i. Maintenance of Fire Extinguishers (Number)
- j. Fire Extinguishing Agents (Type/Number)
- k. Water Systems

NOTE TO WRITER: Specify any testing, maintenance, and repair of fire alarm systems. List only those systems to be covered by the contract. All inspections and test frequencies shall conform to TM5-695 and NFPA Codes 72A, 15, 20, 24, 12, 11, 17, 12A and 12B. Consider the following:

- a. Pull stations
- b. Auxiliary boxes
- c. Master boxes
- d. Sprinkler flow alarms
- e. Fire pump alarms
- f. Carbon dioxide extinguishing system alarm
- g. Foam extinguishing system alarm
- h. Dry chemical extinguishing system alarm
- i. Halogenated extinguishing agent system alarm
- j. Heat and smoke detection system alarm

C.7.5.4 Water Systems: The Contractor shall schedule and conduct tests and inspections of the water distribution system. Procedures and frequencies of the test and inspections shall conform to AR 420-90 and TM 5-695. The work shall include the following: (Installation will specify intervals. Delete if included in the Water Plants and Systems function.)

- a. Monthly visual inspection of all fire hydrants.
- b. Annual flow test of all fire hydrants.
- c. Annually exercise all fire main distribution and fire hydrant sectional control valves.
- d. Monthly conduct 2-inch drain test on wet sprinkler systems, and quarterly on dry and deluge systems.
- e. Annual full-capacity and overload tests of all fire pumps.
- f. Inspect water storage tanks monthly, water level recording devices annually, control valves weekly and pressure regulating and altitude valves semiannually. (These inspections should conform to intervals established for the above inspection.)

C.7.5.5 Maintenance of Water Systems: (Insert necessary instructions if function is not included under the Operation, Maintenance, and Repair of Water Plants and Systems section.)

C.7.5.6 Fire Extinguisher Inspection: The Contractor shall schedule and conduct tests and inspections of all fire extinguishers. Test and inspection procedures and frequencies shall comply with NFPA Code 10. The work shall include the following: (The installation will establish intervals.)

- a. Inspect all extinguishers monthly and conduct maintenance annually or where indicated by inspection.
- b. Replace defective and refill discharged extinguishers at time of discovery.

NOTE TO WRITER: Information must be included as to the types and numbers of extinguishers presently in use and

the date of the last hydrostatic test. If list is long, use an attachment.

C.7.5.7 Maintenance of Fire Extinguishers: The Contractor shall maintain all fire extinguishers in a fully operational mode. Work includes repair, replacement, or recharging of extinguishers; annual maintenance and service of all extinguishers; and hydrostatic testing of extinguishers. Procedures shall be IAW NFPA Code 10.

C.7.5.8 Building and Area Inspection: The Contractor shall schedule and conduct inspections of all buildings and areas IAW AR 420-90. The Contractor shall provide the Contracting Officer a copy of his inspection schedule and report of corrective action taken. The Contractor shall maintain an up-to-date file on each building and area inspected. Work shall include the following. (Installation will establish intervals IAW AR 420-90.)

a. Weekly inspection of extra hazardous occupancy where the fire loading and engineering activity presents high risk to life and safety, and severe fire potential such as aircraft rework facilities, and ships undergoing overhaul. (Include number of hazardous facilities, identify types.)

b. Monthly inspections of aircraft parking aprons, hangers, and docks, places of public assembly, public works, vehicle maintenance shops, warehouses, hospitals, schools, day-care centers, commissaries, and post exchanges. (Include number of facilities.)

c. Quarterly inspections of dormitories, administrative facilities, and others not scheduled for weekly or monthly inspections. (Include number of facilities.)

d. Spot checks and follow-up visits within 30 days of initial inspection to insure all corrective actions have been taken.

e. Before changes in occupancy of buildings. (Estimate number times expected.)

f. Check at least weekly all construction/renovation projects. (Include number of projects.)

NOTE TO WRITER: *Inspections are normally governed by local procedures established by the Fire Chief. Use the existing procedures as a guide.*

C.7.5.9 Records and Reports: The following records and reports will be maintained and submitted as specified below.

a. The Contractor shall maintain complete and accurate records and reports of all prevention services and activities

required by the contract. A list of required records and reports is shown in (specify). All service records and reports shall be available for Contracting Officer review.

b. The Contractor shall maintain a daily written QC report and furnish it weekly to the Contracting Officer. The report shall be IAW the attached sample (or such other form as may be proposed by the Contractor and approved by the Contracting Officer). Additional checklists and forms for specific operations may be required to supplement the daily inspection form. The report shall include all inspections and tests made. It shall provide factual evidence that the required inspection or tests, the results, the nature of defects, the cause for rejection, and that the corrective action taken was performed or indicated as appropriate. The daily report shall cover conforming and defective items. It shall include a statement that all materials and equipment incorporated in the work are in full compliance with the terms of the contract except as noted. The report shall cover all items and specifically include the items listed in the quality control paragraphs of the contract provisions. The report shall be verified and signed by the Contractor. The daily reports shall be furnished in two (2) copies (original and one duplicate) to the Contracting Officer. The report shall be legibly handwritten in ink or typed. Reports shall be submitted not later than COB on the first normal workday following the date of the report. Reports shall have all supporting documents attached. Incomplete reports will not be accepted.

C.7.6 OPERATION, MAINTENANCE, AND REPAIR OF ELECTRICAL PLANTS AND SYSTEMS:

C.7.6.1 Scope: The Contractor shall operate, inspect, maintain, and repair the electrical plants and systems shown in attachment (specify). The plants and systems (including fire alarm systems) shall be operated and maintained in a manner which shall provide that all critical system reliability rates, and all standards as specified, are met or exceeded. The Contractor shall receive, schedule, and perform all work to operate, maintain, and repair the plants and systems. Descriptions, critical rates, minimum frequencies, and equipment details are contained in attachment (specify). Noncritical facilities shall be maintained IAW emergency, urgent or routine procedures as applicable to the occasion.

NOTE TO WRITER: The following documents and directives are applicable to operation and maintenance of electrical plants and systems. Consolidate as applicable. The publications should be screened to determine those applicable to the installation.

No. Title:

Regulations:

AR 415-10	Military Construction - General
AR 420-15	Certification of Utilities Plant Operators and Personnel Performing Inspections and Testing of Vertical Lift Devices
AR 420-16	Facilities Engineering Reports
AR 420-43	Electrical Services
AR 750-7	Installation Material Maintenance Activities
MACOM Supplements to ARs (as applicable to installations subordinate to the using MACOM).	

Technical Manuals:

TM 5-610	Maintenance and Repair: Facilities Engineering Buildings and Structures
TM 5-682	Facilities Engineering Electrical Facilities Safety
TM 5-683	Facilities Engineering Electrical Interior Facilities
TM 5-684	Facilities Engineering Electrical Exterior Facilities
TM 5-811-3	Electrical Design: Lightning and Static Electricity Protection
TM 5-811-4	Engineering and Design: Corrosion Control

Code of Federal Regulations:

40 CFR Part 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and use Prohibitions
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Government Service Requirement:

Real Property Maintenance Activities Guide Specification (RPMAGS), Topic 049, 051, 052, and 053.

Other commercial standards

Circuit Breakers:

ANSI C37.50 + a&b Supplements	Test Procedures for Low Voltage AC Power Circuit Breakers
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ANSI C37.09- (R1969) + "a" supplement	Test Procedure for AC High Voltage Breakers
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Circuit Protectors:

ANSI C37.52	Test Procedure for Low Voltage AC Power Circuit Protectors Used in Enclosures
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Electrical Cable:

ANSI/ASTM D470	Testing Thermosetting Insulated & Jacketed Wire & Cable
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Industrial Power & Commercial Power System:

IEEE Red Book IEEE STD 141	Recommended Practice for Electric Power Distribution for Industrial Plants
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IEEE Buff Book IEEE STD 242	Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems
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IEEE Orange Book IEEE STD 446	Recommended Practice for Emergency and Standby Power Systems
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Electrical Power Systems & Equipment:

ANSI/IEEE STD 142	Practice for Grounding of Industrial and Commercial Power Systems
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National Electrical Code:

ANSI/NFPA 70 NFPB 70 B	National Electrical Code Electrical Equipment Maintenance, (1983)
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ANSI C2 National Electrical Safety Code

Power Generating Stations & Substations:

ANSI/IEEE STD 450 Practice for Maintenance, Testing and Replacement of Large & Lead Storage Batteries for Generating Stations and Substations

Insulating Oil:

IEE STD 64 Guide for Acceptance and Maintenance of Insulating Oil in Equipment

Protective Relaying:

ANSI/IEEE STD 273 Guide for Protective Relay Applications to Power Transformers

Transformers:

ANSI/NEMA TR5 Guide for the Installation and Maintenance of Oil-Immersed Transformers (Appendix to ANSI C57.12 Standards)

ANSI C57-94 Guide for Installation and Maintenance of Dry-Type Transformers (Appendix to ANSI C57.12 Standards)

CAUTION: High voltage equipment is extremely dangerous. Contractor shall caution all contractor personnel handling and working with hot wires or equipment which may come in contact with hot wires. The contractor's QC plans and schedules shall provide detailed specifics as to how contractor plans to provide that his personnel take necessary precautions. Contractor shall require proper safeguards.

C.7.6.2 Operation: The Contractor shall operate the power plants and systems and provide efficient distribution of power, to assure power availability meeting the critical rates specified in (specify). A minimum of (specify) operators shall be provided 24 hours per day seven (7) days per week. Operation shall include record and files maintenance of operations and conditions, analysis of records to determine the most efficient methods of operation and correct nonoptimal practices, testing operations and capabilities of the plants, scheduled operation and inspection of idle equipment, training of operators, and all other work related to operation, maintenance, and repair of the plants and systems.

C.7.6.3 Operating Logs: The Contractor shall maintain operating logs and files on each item of equipment as shown in attachment (specify). Logs and files are maintained for a minimum period of five (5) years. Contractor shall maintain the logs and files to provide that the logs and files reflect not less than five (5) years operational data at all times. All logs and files shall be turned over to Contracting Officer on contract completion or termination.

C.7.6.4 System Outages: The Contractor shall coordinate all scheduled outages with the Contracting Officer. Such outages shall be coordinated at least 72 hours in advance of scheduled outage. The Contractor shall also notify affected installation agencies of the scheduled outage. The Contractor shall attend, as applicable, planning meetings that may affect the power systems which the Contractor operates and maintains.

***NOTE TO WRITER:** Specify how the Contractor will be notified of such meeting and how long in advance. Also, if there are known scheduled outages, list these for Contractor information. Most hazardous areas will have special equipment such as receptacles, lights, etc. Specify all such equipment to include any requirement to inspect insulators using infrared equipment. Consider the following and consolidate as applicable (see C.6 and C.3, respectively):*

*a. **Schedule of Services:** The Contractor's QC Plan shall include a schedule of services for operation and maintenance of the electrical plants and systems.*

b. The following list provides details of the equipment; i.e., size and quantity, types; significant maintenance or seasonal needs should be included, etc. The information must be specific to each installation. Consolidate the information as applicable.

Description and Equipment Details:

NOTE TO WRITER: Substation equipment should be listed individually rather than as a whole. Indicate electrical equipment containing PCBs and cross-reference to C.6.17, or as appropriate.

<u>System/Equipment</u>	<u>Quantity</u>	<u>Size</u>	<u>Location</u>
<u>Substation</u>			
Transformers (Power)	_____	_____	_____
Circuit Breakers	_____	_____	_____
Current Limiting Reactors	_____	_____	_____
Insulators	_____	_____	_____
Reclosers	_____	_____	_____
Voltage Regulators	_____	_____	_____
Transformers	_____	_____	_____
Lightning Protection System	_____	_____	_____
Switchgear	_____	_____	_____
Switches	_____	_____	_____
Capacitors	_____	_____	_____
Fences	_____	_____	_____
Grounding Systems	_____	_____	_____
Batteries	_____	_____	_____
Battery Chargers	_____	_____	_____
Structure	_____	_____	_____
BUS	_____	_____	_____
PTS	_____	_____	_____
CTS	_____	_____	_____
Metering Relaying	_____	_____	_____
Neutral Grounding Register	_____	_____	_____
<u>Exterior Distribution Systems</u>			
Poles/Cross Arms	_____	_____	_____
Aboveground Conductors	_____	_____	_____
Switches (Fused & Unfused)	_____	_____	_____
Transformers (Distribution)	_____	_____	_____
Capacitor Banks	_____	_____	_____
Lightning Arrestors	_____	_____	_____
Regulators (Voltage)	_____	_____	_____
Underground Conductors	_____	_____	_____
Insulators	_____	_____	_____
Guy Wires/Anchors/Bracing	_____	_____	_____
Grounding	_____	_____	_____
<u>Lighting Systems</u>			
Street Lighting	_____	_____	_____
Obstruction Lighting	_____	_____	_____
Aviation Lighting	_____	_____	_____

Security Lighting _____
Athletic Field Lighting _____

NOTE TO WRITER: The following requirement must be specific for each installation. The content relates to allowed downtime of systems and equipment where downtime would be costly in terms of safety, mission accomplishment or monetary loss, etc. If other plants, systems, etc., have critical operating requirements, consolidate and include as a general requirement.

c. **Critical System Reliability:** List the systems or equipment items considered critical; i.e., reliability rate (RR). The installation must provide specific requirements and close, detailed surveillance. The Contractor shall provide maintenance support and spare parts inventory to assure continuous operation of these items. The Contractor's performance in keeping these items operating normally within time frame and downtime allowances must be closely monitored by the Government. The Contractor shall provide that the plants and systems maintain a reliability rate which meets or exceeds the specified reliability rate. Installation will word this paragraph and develop a chart as applicable to the installation. It is recommended that all RR rates be consolidated in one paragraph or attachment.

EXAMPLE

<u>System</u>		<u>Operation Time</u>	<u>Reliability Rate</u>
<u>Equipment</u>	<u>Location</u>	<u>Frame (OTF)</u>	<u>(Allowed Downtown)</u>
Substation	Refer to map of installation	Continuous	1 hr in any 3-mo operating period
Power transformer	Substation	Continuous	1 hr in any 6-mo operating period
Obstruction lighting	Top of building "B"	On demand by low ambient light	0% during demand period
Auxiliary generating equipment	Substation	Whenever commercial power fails	2 hrs in any 24-hr operating period

NOTE TO WRITER:

a. Askarel, sometimes classified as a toxic material, is a form of polychlorinated biphenyl (PCB). Since PCB is not biodegradable, the manufacture of additional PCB is prohibited by law. However, equipment with PCB insulating liquid is still in use and special-handling procedures must be employed. Silicone and other insulating liquids can be used as a substitute for PCB by a Contractor when authorized by the Contracting Officer.

b. Both in-house personnel or a Contractor must comply with current regulations issued by the EPA (specify) for handling PCB. Compliance with the regulations is especially important if PCB leakage or a spill occurs. All instances of a PCB spill or leakage must be reported to the Contracting Officer by the most expedient means. Specify time limits. The DEH must also specify requirements to be met before a transformer can be retrofilled. Silicone cannot be used to "top off."

c. Additional requirements for handling PCB appear in the following publications; however, these publications are not limited to handling of PCB. Reference and specify applicable parts of the publication if appropriate.

(1) Refer to ASTM D-923 (Sampling Insulating Liquids) for methods of obtaining liquid samples.

(2) Refer to ASTM D-877 (Dielectric Voltage Tests) for acceptable voltage breakdown values during tests of dielectric liquid to determine its insulating ability.

(3) Refer to ASTM D-1534 (Liquid Acidity Tests) to determine oxidization of the liquid.

(4) Refer to ASTM D-1524 (Liquid Color Tests) to determine contamination of the liquid.

d. Contractors will be required to provide all protective materials, equipment, etc., for personnel handling PCB.

e. Replacement of PCB, where no other work is accomplished, has been determined to be a service.

C.7.6.5 Auxiliary Generator Maintenance Schedules: AR 420-43 requires that maintenance schedules published in TMs 5-683 and 5-684 shall be complied with. The Contractor shall comply with all mandatory maintenance schedules reflected in the TMs. In addition, AR 420-43 specifies special schedule requirements for auxiliary equipment used in certain applications (e.g., hospitals, nuclear delivery or storage areas, etc.). The Contractor shall comply with all requirements of AR 420-43 which includes the following: (Cite applicable paragraphs of the ARs and TMs.)

a. Generators serving hospitals, nuclear delivery or storage areas, or chemical delivery and storage areas shall be exercised monthly (specify interval) for at least 30 minutes under the actual load supported by the generator during emergency conditions. Inspection of equipment shall be weekly (specify). Procedures for exercising and inspecting are described in paragraph 3-4.1 of NFPA 76A. Load banks shall not be used.

b. Generators (specify numbers, types, etc.) supporting other loads shall be exercised each month (specify interval) until the prime mover reaches normal operating temperature. This exercise shall include at least 30 minutes' operation at full load, or as close as available loads permit. The manufacturer's recommendation shall be followed if a longer exercise period is indicated. Inspection shall be (specify). This includes uninterruptible power supply generating units which float on the powerline continuously and supply electricity to critical loads without interruption. Load banks may be used if available actual load is insufficient to load the prime mover properly.

c. For generators at communications facilities, the scheduled inspections and maintenance procedures are as follows:

(1) Weekly.

(a) Inspect and test for proper operation all transfer switches, protective devices, and wires and cables.

(b) Conduct auxiliary power exercises using either a dummy load for off-line testing or the operational load when synchronizing and switching devices are available. When a dummy load is not available or the operational load cannot be assumed because of operational commitments, exercise the system off-line for a short time. Verify that the engine starts, proper speed is maintained, and proper output voltage is present. When the station load is assumed, exercise auxiliary electric power equipment for at least 1 hour prior to returning to the primary power source to ensure the equipment is brought up to operating temperatures. Exceptions and scheduling details are contained in AR 420-43.

(2) Monthly. Conduct monthly auxiliary power exercises using the station operational load assumed during actual auxiliary power operations.

(3) Quarterly. Conduct quarterly exercises of the automatic start and load assumption cycle on units so equipped. Test by disconnecting the primary power source to cause the automatic start feature to cycle.

d. At least every six (6) months, the exercise shall include a test of the automatic start and load controls for generators.

e. An operating log shall be maintained in each generator room as noted in C.7.6.3. The log shall, as a minimum, provide the date and duration of the exercise period, load carried, condition of equipment, and name of operator. An SOP

shall be mounted on a wall near each generator. The SOP shall detail steps to start, run, load, and secure the generator under both normal and emergency conditions.

NOTE TO WRITER: *Provide all available information covering location(s) of site(s) where work will be performed. Include areas maps, site layouts, substation drawings, etc., as appropriate in attachments, drawings, etc.*

<u>System Identification</u>	<u>Location</u>	<u>Distance</u> (from XYZ)
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All major equipment numbering, names, and locations should be listed. Location can be by building number or reference map coordinates. Distance is from the main office or central working area. This listing can also refer to or include a master maintenance schedule. Equipment maintenance encompasses preventive maintenance (Contractor-initiated inspections, checks, and maintenance) and breakdown maintenance (repairing failed components). If possible, maintenance should be performed when equipment is shut down (not energized). Only in extreme circumstances should equipment be worked "hot." The systems need to be specifically addressed as applicable to the installation.

C.7.6.6 **Maintenance and Repair:** The Contractor shall provide an inspection, preventive maintenance, and repair program which shall ensure that all critical system reliability rates and all standards are met. The Contractor's work and services shall be accomplished IAW applicable Army technical manuals, manufacturers' instructions and recommendations and the Contractor's schedules. Upon completion of any maintenance work, the equipment and its components shall be clean, shall not be "jury rigged," and shall have no missing or damaged parts. All components and parts shall be tight fitted. All lubrication shall have been accomplished and all fluid levels shall be at specified levels and be of the specified type, and the equipment shall operate within its design limitations, at

not less than the required efficiency levels. The Contractor's work shall include high voltage splices, and maintenance and repair of all components and accessories related to the major items. As a minimum, the Contractor shall provide inspection and preventive maintenance and repair at the frequencies established in (specify). (Do not include frequencies if not needed for contract surveillance and if the Contractor's work plans are to include the necessary information for surveillance needs.)

NOTE TO WRITER: *The following items, a through r, relate to workload and acceptance standards. Determine and include installation requirements as applicable. Many of the work requirements do not occur each year. Those not occurring each year should be broken out by option year in the schedule.*

a. **Control Devices and Meters:** Control devices for plants and systems are located at (specify) substations. Locations of the substations are shown on the installation map. The Contractor shall perform daily inspection and preventive maintenance on all control devices and meters. There shall be no loose connection, arcing, overheating, worn or frayed wiring or components worn to the extent that they may be unsafe or are likely to break down or affect critical operations. All meters shall provide readings which are accurate within design limitations.

b. **Power Transformers (Ref: AR 420-43 and NFPA 70B):** There are (specify) power transformers as shown in (specify). The Contractor shall (specify) check ground resistance and make corrections. Each contract year, during the month of (specify), the Contractor shall inspect and perform preventive maintenance on all power transformers. The Contractor shall observe and record ambient temperature, liquid temperature, winding temperature, load current (amperes), voltage, tank pressure gauge and liquid level while in operation. Read and then reset maximum temperature indicators on both the oil and winding temperature gauges. There shall be no loose connections, contaminated bushings, oil leaks or oil on external surfaces, no foreign material in cooling fans, or any evidence of overheating at terminals. All bushings and components shall be clean. In addition, the Contractor shall take a sample of oil, test the oil, perform dissolved gas analysis, and filter oil if testing so indicates. (Incorporate any requirements related to pole mounted distribution transformers. In addition to other tests mentioned, contractor should be required to conduct Infra-red inspections at each electrical connection, at insulators, and at switching contacts, when at, or near, peak load. Special attention should be given to transformer and lightning arrestor grounds. Ground resistance should be measured each year. If component failures are caused by ambient temperature,

corrosion or overloading, consider replacement by better than original items.)

c. Protective Relays: There are (specify) protective relays as shown in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and perform preventive maintenance on the relays. Work shall include burnishing contacts, cleaning case and cover, and work to insure that relays operate as designed.

d. (Air) (Vacuum) Circuit Breakers: There are (specify) (air) (vacuum) circuit breakers as shown in (specify). Every two (2) contract years, during the month of (specify), the Contractor shall inspect and perform preventive maintenance services on the breakers. The work shall include check of insulation by power factor test, cleaning and applying a light film of nonoxide grease on contacts, and all components checked for correct operation. An approved solvent may be used if listed in manufacturer's literature to clean operating mechanisms. The breakers shall be clean, including arc chutes, and the mechanism shall operate as designed. Check for signs of overheating, corona, and tracking. (See NFPA 70B for maintenance requirements for vacuum breakers.)

e. Oil Circuit Breakers: There are (specify) oil circuit breakers as shown in (specify). Every two (2) contract years, during the month of (specify), Contractor shall inspect and perform preventive maintenance on the breakers. The work shall include reading availability of control power with a voltmeter on all relays of relay-operated breakers, checks for oil leaks, dents, corrosion, grounding, general condition, proper oil level, leads and fuses, operating rods and cranks, trip latches, roller linkage, operating piston plungers and springs, all switches, closing dashpot, and front crank assembly. CAUTION: Electrical leads must be isolated by use of a bypass or arrangements must be made to interrupt service to perform maintenance. On pneumatic systems, work shall include air tanks, air compressor, piping, valves, pressure switches, gauges, solenoids, lift rod and stop, alignment of interrupter, contacts, test of oil and filtering or replacement. The Contractor shall check wear and resistance of all contacts, read, record data, and reset all operation counters. The relay(s), to include all components, shall be maintained clean and operating as designed.

f. Reclosers: There are (specify) reclosers as shown in (specify). Each contract year, during the month of (specify) (or earlier when the number of cycles requires preventive maintenance on the recloser), the Contractor shall remove installed reclosers when performing PM. A spare recloser, or suitable fuses, shall be installed as a temporary replacement while the PM is being performed. CAUTION: All internal parts and oil must be free of dirt and moisture at all times. Reclosers'

internal mechanisms shall not be exposed to outside environment. The Contractor's services shall include cleaning the internal mechanism as required. The cleaning shall be accomplished with clean dry transformer oil (or a solvent may be used if recommended by the manufacturer). Clean contacts with a fine sandpaper. Replace gasket and fiber liner, if deformed or damaged, check, clean, or replace bushings, replace internal lightning arrester if damaged, repaint tank with primer and transformer paint (specify acceptable paint types), refill with new dry oil and read, record data, and reset the operations counter. Upon reinstallation of the recloser, the reclosers shall be clean, shall be dirt and moisture-free internally, and shall operate as designed.

NOTE TO WRITER: Manufacturers usually recommend that maintenance on reclosers be accomplished after a given number of cycles or a given time period, whichever occurs first. Other factors which must be considered are humidity and variations in ambient temperature. The installation will establish firm criteria and reword as applicable.

g. Voltage Regulators: There are (specify) voltage regulators as shown in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and perform preventive maintenance on the regulators. Contractor's work shall include: (1) Read and record voltage; (2) switch to manual, put regulator in a neutral position, and read and record the unregulated voltage; and (3) switch back to automatic, allow regulators to return to normal buck or boost position, and recheck and record voltage. In addition, the Contractor shall check bushings and clean or correct, check for oil leaks and correct, check indicating lights and glass covers, and correct to insure that regulators are weathertight, record counter reading and compensator setting, and check voltage setting of "contact-making voltmeter" by reading voltage on load center testing terminals. If on regulators with line drop compensators, turn back contact arms to zero, inspect main contacts of step voltage regulator for burned or blackened condition, observe condition and operation of light switches to ensure that movable contacts open with snap action and close completely, and check motor control relay to ensure that it operates without chattering or is not sluggish. The Contractor shall make all corrections. In addition, in contract year (specify) (this work is required each five (5) years) the Contractor shall check the entire mechanism to insure that it performs as designed and in accordance with manufacturer's instructions to include motor connections, lubrication of motor, cleaning motor, taking a sample of insulating oil and checking for color, moisture, carbonization, dirt, sludge, and dielectric strength, filter or replace, perform insulation resistance test, and check and correct equipment grounds. (The five (5) year maintenance will require that electrical leads be isolated or transferred, or arrangements made

to interrupt service as power must be removed from the regulator.) The regulators shall be maintained clean, all connections tight, and shall operate as designed. Regulators shall be set at correct voltage levels. (The five (5)-year work will require disassembly and reassembly.)

h. Potential Transformers: There are (specify) potential transformers as shown in (specify). Each contract year, during the month of (specify) the Contractor shall inspect and perform preventive maintenance on the potential transformers. The Contractor's work shall include checking butyl or porcelain surfaces for damage, checking bushings for dirt or other deposits, removal, test and reinstallation of grounding strap, and making all corrections. The potential transformers shall be maintained clean, without damage, and shall operate as designed.

i. Current Transformers: There are (specify) current transformers as shown in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and perform preventive maintenance on the current transformers. The Contractor's work shall include check of butyl or porcelain surfaces for damage and bushings for dirt or other deposits. Contractor shall make all corrections. The current transformers shall be maintained, clean, without damage, and shall operate as designed. **CAUTION**: Current transformers secondaries should be shunted or with load when energized (to avoid dangerous voltage build-up).

j. Lightning Protection Systems: There are (specify) lightning protection systems as shown in (specify).

(1) Each six (6) months, during the months of (specify) and (specify), the Contractor shall check for loose connections and check all ground connections and measure ground resistance and insulation resistance at each arrester section. The Contractor shall check shielding devices such as lightning rods to ensure that connections to ground are made with minimum resistance and that all supports and clamps are mechanically secure. The Contractor shall also identify any arresters causing radio interference by using interference location methods and equipment. The Contractor shall make all corrections. The arresters shall be maintained clean, all connections shall be tight, and the arresters shall operate as designed. Check grounding resistance of arrester under dry conditions (after at least 48 hours after last rainfall). The maximum readings should be: (1) station type arrester-5 ohms, (2) intermediate type-10 ohms, and (3) distribution type-25 ohms.

(2) During contract years, (specify) and (specify), (this is a two (2)-year requirement), Contractor shall inspect and perform preventive maintenance IAW paragraph(s) TM-684.

(3) **CAUTION**: Before performing inspection or maintenance on lightning arresters, disconnect the arrester from the live line and ground it as a safety precaution.

k. Substation Structures:

***NOTE TO WRITER**: Substation structures should be incorporated into the "Building and Structures" functional area (C.7.11 of this guide) in order to reduce possibility of overlap of work and ambiguity. The following items should be considered to ensure adequate coverage in C.7.11:*

(1) Most steel used for substations, especially the outdoor type, is galvanized and maintenance is not needed unless rust appears. If rust appears, the structure should be spot painted. If rust covers more than five (5) percent of visible surfaces, the entire structure should be painted. Before painting, remove all rust.

(2) Most steel used for indoor substations (and some outdoor stations) is not galvanized and paint must be used for preservation.

(3) Aluminum alloy structures need no surface protection and painting is not recommended.

(4) Permanent wood structures should be inspected and treated as specified in TM 5-684. Temporary wood structures may or may not be treated, depending on local climate and expected life of the structure.

(5) Concrete used as a foundation base for metal structures and for equipment should be visually checked during other maintenance. Repair cracks wider than one-eighth inch using a sand-cement grout or a two-part epoxy cement. Deteriorated cement should be replaced.

(6) Regardless of structural material used, all connections, joints, fastening hardware, etc., should be checked every two (2) years and loose, broken, or missing parts replaced or tightened to maintain a rigid structure. Special attention should be given to grounding connections.

l. Buses:

***NOTE TO WRITER**: Work for buses is limited to inspection of the bus conductors and connections for overheating, loose or corroded connections, and poor alignment that might result from short-circuit stresses. However, special attention must be given to contacts between dissimilar metals. Cleaning or replacement will be required only as necessary. Cleaning will be limited to removal of excessive contamination from*

supporting insulators and removal of corrosion from the conductor if it affects contact resistance at connections, or which will lead to deterioration of the conductor. The installation must determine its needs and establish firm criteria for inspection, preventive maintenance, and repair of buses. Check insulators for cracks, hot spots, corona, tracking, noise, etc.

m. Switchgear and Equipment: There are (specify) switchgear and equipment as shown in (specify). During contract year(s) (specify) and (specify) during the month(s) of (specify), the Contractor shall inspect and provide preventive maintenance services on all switchgear and its accessories. (The Contractor's inspection shall include scanning of the equipment utilizing applicable infrared scanning devices.) Preventive maintenance services shall be performed IAW manufacturer's instructions and recommendations. All parts shall be installed correctly, no parts shall be missing or damaged, and the switchgear shall operate as designed. The switchgear shall be maintained clean, and all lubrication required shall have been performed. Special attention, such as infrared scanner, should be given to bolted BUS joints. Inspect for overheating, corona and tracking.

NOTE TO WRITER: *The frequency of inspection and maintenance of switchgear equipment is dependent on environment and use. The writer must consider the following factors to arrive at the optimum schedule for a given installation. It is good practice to inspect equipment three*

(3) to six (6) months after it is first put in service. Thereafter, the frequency should be two (2) years (refer to AR 420-43). Conditions that make frequent inspection and maintenance necessary are:

- (1) High humidity and high ambient temperature*
- (2) Corrosive atmosphere*
- (3) Excessive dust and dirt*
- (4) High repetitive duty*
- (5) Frequent fault interruption*
- (6) Older equipment*

Switchgear must be inspected for possible maintenance needs whenever current has been interrupted at or near its rated capacity. If the circuit breaker is equipped with oil film timers or with oil dashpot devices, the oil and oil cup will be inspected every six (6) months. All circuit breakers which normally remain idle will be exercised several times every six (6) months, preferably under load. Detailed information and instructions should be obtained from the manufacturer's manual. Maintenance on energized or deenergized switchgear equipment must be considered by the installation. Maintenance scheduling will also take into consideration the use of infrared scanning equipment by Contractor. Scanning can detect hot spots with enclosure doors open during operation.

n. Capacitor Banks: There are (specify) capacitor banks as shown in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and provide preventive maintenance services on all capacitor banks IAW the manufacturer's instructions and recommendations. Inspection and maintenance work shall include all capacitor bank components. The banks shall be maintained clean, no parts shall be missing or damaged, and the bank shall operate as designed. (Insert any requirements related to pole mounted capacitor banks. Include any testing requirements. Where state codes are stricter than Federal Standards, the installation should require contractor's work to meet the more strict standards.)

NOTE TO WRITER: *Under normal service conditions, installed capacitors require no maintenance. In contaminated atmospheres, scheduled cleaning of bushings may be necessary to prevent arc-over. To establish an interval for maintenance, you must check the manufacturer's instructions and recommendations.*

o. Manholes: There are (specify) manholes as shown

in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and provide preventive maintenance services on the manholes and all installed components in the manholes. CAUTION: A test for gases and electrical leakage (in questionable manholes with aging cables) must be made prior to entering any manhole. Check existing grounding. All required maintenance services shall have been performed and all components shall be maintained clean, all defects corrected, drainholes shall be free of obstructions, and all components operating as designed.

p. Overhead Distribution Lines (include underground lines if applicable): There are (specify) miles of overhead distribution lines as shown in (specify). Each contract year, during the month of (specify), the Contractor shall inspect and provide preventive maintenance services and repair. The Contractor shall be required to replace an estimated (specify) poles, (specify) crossarms, (etc.), each contract year. All components shall be maintained tight, there shall be no missing or damaged parts, and the system shall be safe and operating as designed. (Check insulators with infrared each (specify) year(s).

(1) Wood poles. Wood pole setting depth shall conform to table 4-1 of TM 5-684. All poles to be climbed shall be sound tested once each contract year. If determined to be bad, the pole shall be replaced (insert time frame). Wood replacement poles shall be salt threaded. No penethol or creosote treated poles shall be used. Replacement poles shall be the same size as existing and conform to requirements of (insert manual). Height of poles used for communication cables only will be determined by the contracting officer. Backfilling of holes shall be tamped in layers of six (6) inches and mounded up around base to a minimum of four (4) inches above ground level to allow for settlement. Replacement poles shall be numbered in conformity with the existing numbering system. Existing numbers shall not be repeated.

(2) All metal poles shall be polished aluminum. Aluminum poles exceeding 15 feet, but less than 30 feet in height shall be bolted to a concrete base. Aluminum poles without concrete bases shall have wire entrance hole or be drilled to accommodate feed wires below ground level.

(3) Existing ferrous metal poles shall be cleaned and painted when rust covers more than five (5) percent of surface area and spot painted during maintenance.

(4) Guy wires shall be galvanized steel wire and shall be maintained tight and grounded to the common neutral. Anchor extensions shall be used when a single anchor will not withstand strain of the guy wire. All guys and anchors will be removed when not in use or when line is removed. All guys,

anchors, guy shields, and hardware shall be maintained IAW (specify) and as further specified in (specify).

(5) Conductors shall be spliced in tension spans with full tension sleeves to include service drops. Replacement of open wire service drops and laterals shall be with multiplex conductors. Connectors shall be compatible to the conductors being connected. Slack in conductors, clamps securing conductors, and integrity of conductors shall be maintained IAW the specifications herein and in (specify) pertaining to poles and hardware. Hot taps made on or to the distribution system shall be made only by line personnel qualified IAW (Lead lineman with eight (8) years experience in high voltage wire work or first class lineman with five (5) years experience in high voltage line work). All conductors shall be maintained free of debris, windblown, or other into aerial lines.

(6) Pole grounds shall be maintained as specified herein and in (specify) pertaining to poles and hardware. No wrap grounds shall be employed on wood poles. Metal street light poles shall be grounded IAW NEC. All transformer, capacitor, oil switch, riser shields, lightning arrestors, terminals, street light fixtures, and fences shall remain grounded to the common neutral or ground electrode. All aluminum conductors used for case grounds shall use transformer adaptors on termination ends going into lugs. Grounds for aviation refueling points and the ammunition bunkers shall be tested for resistance once each contract year. Aluminum wires shall not be used for extension electrical or system grounds.

(7) Cross-arms shall be utilized for support of primary circuitry, three phase disconnects and three phase primary terminals on poles. Cross-arms shall not be utilized on single phase construction. Cross-arms shall be maintained IAW (poles and hardware) and as specified herein.

(8) All spacing for construction, installations, or modification shall be taken from TM (specify). Open wire secondary spacing shall be kept uniform in each span with neutral wire being the top secondary conductor. Foreign cable shall not be attached closer than 40 inches to distribution system cables. Street light brackets shall be mounted in the 40-inch space between the distribution cables and foreign cable. Primary jumpers shall not be left closer than eight inches to wood or 14 inches phase to phase.

(9) Prior to transferring conductors from an old pole during pole replacement, all other utility companies having cables on the pole shall be notified of intent to transfer and waive responsibility if not transferred within two weeks. After elapsed time, all foreign cables shall be transferred, old pole removed and hole backfilled.

In the event of an accident resulting in a broken pole or dislocation of foreign cables after regular duty hours, foreign

cables shall be removed from roadway accomplished in the safest possible manner with a minimum amount of damage to foreign cables after electrical power has been restored. In the event of an accident resulting in a broken pole or dislocation of foreign cables during regular duty hours. The company's responsible for the foreign cables shall be notified and repairs made by that company after poles have been replaced and distribution system equipment repaired.

(10) Cutouts used for disconnects, terminal poles, and three phase bank poles shall be 15 KVA, 100 amp. Line disconnects and capacitor shall be 200 amp, 15 KVA. Cutouts for single phase transformers and terminals shall be mounted on offset bracket of galvanized steel. Cutouts for three phase disconnects shall be mounted on crossarms. All risers from top of cutout to the source of feed shall be connected to the line by means of a hot line clamp. When connecting hot line clamp to aluminum conductors a saddle shall be employed between the line and the hot line clamp. Transformer lightning arrestors shall be mounted to tank, grounded, and connected to bushing being protected. Lightning arrestors for terminators shall be mounted on same arm as terminator to be protected.

(11) Pole mount transformers shall have two (2) separate case grounds, connected to common neutral and shall be protected from the main line by a cutout fused IAW (specify). The use of crossarms and platforms for hanging transformer or capacitor banks is strictly prohibited and shall be changed to cluster mounting racks when pole is replaced. Distribution, and current and potential transformers on the overhead distribution system

shall be maintained IAW the specifications herein and (specify).

(12) Capacitors shall be maintained IAW (specify) and the specification herein pertaining to capacitors and shall be connected and disconnected from the line IAW (specify) pertaining to substation regulators. Stored capacitors shall remain short circuited while in storage.

(13) Oil switches shall be removed from service for painting. Air switches shall be replaced with oil switches when the supporting pole is replaced or when the air switch becomes defective. Oil and air switches shall remain grounded to the common neutral and a driven ground electrode when in service. Leads connecting the oil switch to the main line shall have ampacity equal to or greater than the existing line conductors. When aluminum leads are used, they shall have appropriate terminal lugs on bushing end for terminating into or onto copper alloy switch terminals. Connections to main line shall be compression type connectors. Oil and air switches shall be inspected along with all distribution system components IAW their respective maintenance checklists in (specify) and as specified herein. Air switches shall not be opened under load.

(14) Brush clearance on existing line shall be kept to a minimum of two (2) feet of clearance between conductor and limbs. Conductor clearance shall be maintained IAW the specifications herein and in (specify) pertaining to poles and hardware. Clearance under power lines shall be maintained as specified in (specify). Lines shall not be constructed where primary line is over the top or within 12 feet of any building.

(15) Bolts used in exterior line work shall be galvanized, steel and the type used in the exterior electric line construction trade. Rusty bolts and hardware shall be replaced. Bolts and hardware shall be maintained IAW the specifications herein and (specify) pertaining to poles and hardware.

q. Storage Batteries: There are (specify) 6-volt, (specify) 12-volt, (specify), 24-volt (etc.) batteries installed on (specify) items of equipment and (specify) 6-volt, (specify) 12-volt, (specify) 24-volt (etc.) batteries stored in (specify) which are used as spares. Each month, during the (specify) week of the month, the Contractor shall inspect and provide preventive maintenance services on the batteries. The batteries shall be maintained clean, free from corrosion, and shall be fully charged and capable of providing the designed output. Batteries that are damaged or will not hold or deliver rated output shall be replaced by the Contractor at no additional charge to Government. An estimate of (specify) 6-volt, (specify) 12-volt, (specify) 24-volt (etc.) batteries will require replacement each year.

r. Outdoor Lighting Systems and Equipment: There are (specify) miles of outdoor lighting, as shown in (specify). The Contractor shall inspect and maintain (specify) areas on a daily basis and all remaining areas on a monthly basis during the (specify) week of the month. All lights shall be operating as designed. Lighting systems in (specify) and (specify) are in secure areas and the Contractor shall provide personnel with a security clearance of (specify) or higher to provide the work in these areas.

NOTE TO WRITER: Schedules for inspection and maintenance of outdoor lighting systems and equipment may be affected by local climate and environment, urgency for continuity of service, etc. The installation shall determine the requirements and should consider street and highway lights, obstruction lights, security lights, heliport/airport lights, etc. Normally, inspection and maintenance should be monthly. Daily checks should be required in high risk areas.

C.7.6.6.7 Safety Requirements: The Contractor shall comply with safety procedures described in TM 5-682 and the following special safety requirements.

a. On a quarterly basis, all insulated booms, rubber gloves, blankets, line hose, and hood shall be dielectrically tested by a certified tester. Proof of testing submitted to the contracting officer within three working days of receipt in the form supplied by the tester. When hydraulic hose is replaced in the insulated portion of bucket trucks, the boom shall be dielectrically tested before equipment is utilized on energized conductors.

b. Conduct a daily test of electrical bucket truck, to include hydraulic test, visual inspection, and check of lifting devices.

c. There shall be a minimum of two (2) qualified personnel in the working areas any time work is being performed on energized conductors. One must be qualified IAW (specify) as a High Voltage Electrician. The second person shall be trained in the area of High Voltage Electrical Safety and possess a knowledge of how to safely rescue injured personnel and shall be in the immediate vicinity of the work being performed.

d. ANSI approved electrical hard hats shall be worn by the entire crew while personnel are working aloft on the distribution systems. The area underneath the pole or area being worked shall be roped or cordoned off to prevent personnel from walking in the work area.

e. All equipment used, when performing work on the distribution system shall be grounded IAW the provisions of Article 250 of the NEC.

f. Personnel shall wear rubber gloves while setting poles in energized conductors. Top of pole to be installed shall be covered with pole shields.

g. One electrical service bucket truck shall be kept in a protected area to protect it from freezing and shall be maintained in a ready state for response to all electrical emergency and urgent work.

h. Linemen's gloves shall be air tested and visually inspected daily when working on energized conductors. No rubber gloves shall be worn without keepers. All gloves used for exterior line work shall be rated at 20 KV, class 2.

i. Traffic cones shall be utilized when working on or near roadways, and to seal off areas of danger.

j. Traffic directors shall be provided by the contractor any time equipment or work causes an interference with vehicular traffic.

k. Personnel performing distribution system work shall wear safety boots with steel toes and shanks.

l. No oil switches, transformers, regulators, capacitors, or other electrical equipment containing more than 50 ppm of PCB shall be installed on (specify).

m. All electrical distribution capacitors being removed from service shall be short-circuited and grounded and shall remain short-circuited when not in use.

n. All conductors shall be treated as energized unless tested and grounded. Tagging, testing, and grounding performed for personnel protection prior to working on deenergized conductors shall be done by the person(s) performing the work.

o. Rubber gloves shall be worn when any work is being performed on energized conductors and when tree branches or foreign debris is being removed from energized distribution lines or equipment.

p. All metal casings on the equipment on the distribution system shall be grounded to common neutral and grounded at each installation with an earth electrode.

q. Manholes shall be tested for gases with a gas scope prior to entering. When performing work in manholes, one (1) person shall be stationed above ground level to ensure safety of personnel working in manholes.

r. No air switches or cutouts used for line disconnects or capacitor protection shall be opened under load.

s. Electrical service bucket trucks shall not be utilized for anything but electrical distribution system support.

t. A five (5) pound ABC type fire extinguisher (for the purpose of extinguishing fires resulting from arcing or fallen wires) shall be maintained on each vehicle used to perform high voltage electrical work.

u. No smoking shall be permitted in the battery charging area of any substation, or in any manhole where a ventilation system supplying a constant flow of fresh air is not present.

v. No electric meters shall be set under load. Caution must be exercised when disconnecting current transformer meters, as constant current transformers generally require shunting prior to removal of meter, and failure to do so will damage the current transformer.

C.7.7 Operation, Maintenance, and Repair of Heating Plants and Systems:

C.7.7.1 Scope: The Contractor shall operate, inspect, maintain, and repair all heating plants and systems. The plants and systems are as shown (specify). (Describe materials of construction and age and condition of piping.)

C.7.7.2 Steam and Hot Water Boiler Heating Plants: There are (specify) boiler plant facilities located as shown in exhibit (specify). Total capacity is (specify) pounds per hour (lb/h). The fuel is (specify).

C.7.7.3 Unattended Heating Plants:

NOTE TO WRITER: Use this paragraph to describe any unattended, self-contained heating plants in facilities not fed by central plants. (e.g., Family Housing.)

C.7.7.4 Laundry Support Equipment: The steam plant supporting the installation laundry is located in building (specify). Its rated capacity is (specify) lb/hr. The fuel is (specify).

C.7.7.5 Steam Distribution System: There are (specify) miles of steam distribution lines of which (specify) miles are underground. There are (specify) miles of condensate return lines of which (specify) miles are underground (indicate the approximate miles of both steam distribution and condensate return lines in each size diameter present). The distribution system averages (specify) years old. The system contains approximately (specify) valves and steam traps. (List any cathodic protection present.)

NOTE TO WRITER: Several alternatives are available concerning fuel accountability dependent upon where storage sites are physically located. The requirement must be tailored to meet installation needs and requirements included in specific tasks. If applicable, include requirements for operation, maintenance and repair of Energy Monitoring and Control Systems (EMCS), refuse incinerators, wood burning boilers, cathodic protection, etc. All fuel for the boiler plants will be furnished by the Government. The Government will verify and accept fuel deliveries. The Contractor shall control and account for all fuel from the storage area to the boiler plants. Specify how the Contractor will interface with the Government concerning fuel. The following documents are applicable to operation, maintenance, and repair of heating plants and systems. Consolidate as applicable.

NOTE TO WRITER: Quality assurance water sample analysis is accomplished IAW AR 420-49. The installation (or its Contractor) will be responsible for regular boiler water tests. USAEHSC offers laboratory training for plant operators which normally requires three (3) days. Also available through the USAEHSC chemical laboratory are consulting services, and condensate corrosion testers. Further information should be obtained by calling AUTOVON 345-3151/3588 (Commercial 703-355-3151/3588).

NOTE TO WRITER: The following documents are applicable to Heating Plants. Consolidate as applicable.

<u>No.</u>	<u>Title</u>	
<u>Regulations:</u>		
AR 420-49	Heating, Energy Selection, and Fuel Storage Distribution and Dispensing Systems	TM 5-654 Maintenance and Operation of Gas Systems TM 5-805-4 Noise and Vibration Control for Mechanical Equipment TM 5-810-5 Plumbing TM 5-810-6 Nonindustrial Gas Piping Systems TM 5-810-7 High-Pressure Gas and Cryogenic Systems
<u>Handbooks:</u>		<u>Army Field Manuals:</u>
Questions and Answers on Boiler Feedwater Conditioning		FM 10-69 Petroleum Supply Point Equipment and Operations FM 10-70 Inspecting and Testing Petroleum Products
<u>Instructions:</u>		<u>MACOM Supplements (if required):</u>
EHSC Pam 1	Instructions for Boiler Water Test Kit for Sodium Sulfite	<u>Industrial Publications:</u>
EHSC Pam 2	Instructions for Boiler Water Test Kit for Causticity	
EHSC Pam 3	Instructions for Boiler Water Test Kit for Phosphate	Manufacturers' operating and maintenance bulletins, parts/spare parts lists, drawings, etc., for all equipment included in heating plants and systems for the installation, site or post.
EHSC Pam 4	Instructions for Determining Dissolved Solids in Boiler Water by Electrical Conductivity for Control of Boiler Blowdown	Kent's Mechanical Engineers Handbook, latest edition (two volumes), John Wiley and Sons, Inc., Standard Handbook for Mechanical Engineers, latest edition, Baumeister & Marks
EHSC Pam 5	Instructions for Test Kit for Tannin by Boiler Water Color	ASHRAE Guide and Data Books, latest editions. Basic Plumbing Code 5th edition.
EHSC Pam 6	Instructions for USAEHSC Test Kit for Condensate pH	
EHSC Pam 7	Instructions for Test Kit for pH of Boiler Water by Indicator Paper	<u>State or Local References (specify):</u>
EHSC Pam 8	Instructions for Use of USAEHSC Return Line Corrosion Tester	
EHSC Pam 9	Instructions for USAEHSC Hardness Test Kit	
<u>Army Technical Manuals:</u>		
TM 5-551K	Plumbing and Pipefitting	C.7.7.6 <u>Operate and Maintain Boiler Plants:</u> The Contractor shall operate the boiler plants as indicated in AR 420-49. Operation of boiler heating plants involves: startup and shutdown of heating equipment, operator maintenance and inspection (that maintenance required to operate the boilers on a daily basis), and efficient and economical (steam) (hot water) production to assure its availability. This activity also includes: record keeping of operations and conditions, analysis of records to correct non-optimal practices, water treatment, monitoring warranties, testing operations and capabilities of boiler plants, periodic operation and inspection of idle equipment, training of operators, furnishing of supplies other than fuel, and cleaning, preservation, lubrication, and adjustment of plant equipment. The Contractor shall operate the equipment according to manufacturer's instructions and the Contractor's schedules, and maintain output values listed in TM 5-650. Operating logs shall be maintained on all equipment as specified (below) (in attachment).
TM 5-618	Paints and Protective Coatings	
TM 5-643	Repairs and Utilities: Preventive Maintenance for Heating Plants and Systems	
TM 5-644	Boiler Heating: Repairs and Utilities	
TM 5-646	Space Heaters: Repairs and Utilities	
TM 5-650	Repairs and Utilities: Central Boiler Plants	
TM 5-651	Central Boiler Plants: Inspection and Preventive Maintenance Services	
TM 5-652	Steam, Hot-Water, and Gas Distribution Systems; Repairs and Utilities	
TM 5-653	Steam, Hot-Water, and Gas Distribution Systems; Inspection and Preventive Maintenance Service	
		a. The Contractor shall provide certified boiler operators 24 hours per day, seven (7) days per week, to man each boiler plant being operated and maintained; (specify specific seasonal periods applicable to plants). (The installation will specify what certification is required.) The Contractor's

employees shall be certified IAW AR 420-15 prior to any employee performance of any work on boilers.)

b. The Contractor shall inspect, maintain, and repair boiler plants IAW AR 420-49. Maintenance of central boiler plants shall include (steam) (HTHW) heating sources, fuel storage and handling, feedwater, condensing, flue gas and air system equipment, miscellaneous pumps and plant instrumentation, as well as associated appurtenances necessary to generate and deliver steam to facilities external to the boiler plant buildings. All equipment maintenance and repair shall be accomplished to meet or exceed the reliability rates expressed in (specify) and maintain a condition at least equal to that at time of receipt. The quality of work accomplished shall meet manufacturer's specifications and applicable documents as listed in (specify), and the Contractor's schedules. (Installation will insert applicable specifications and documents.)

c. The Contractor shall maintain all boilers not in use in a fully operational condition except when deactivated. In the event that any boiler cannot be placed on line within eight (8) hours, notification, including the probable cause, shall be submitted to the Contracting Officer. Operational emergencies, such as ruptured tubes, loss of boilers, loss of power, etc., which reduce the steam rate by 15 percent or boiler pressure by 20 percent or more for a period exceeding 30 minutes shall be reported within 30 minutes of occurrence to the Contracting Officer together with identification of the probable cause and the estimated time required before full pressure and steam rate can be restored. When deactivating boilers use proper lay-up procedures IAW TM 5-650 (include any other site specific equipment in this paragraph.)

d. The Contractor shall make arrangements with the OCE sponsored Contractor to conduct the required annual high pressure boiler safety inspection(s). (This service is accomplished at no cost to the installation or its Contractor.) The DEH will provide to the Contractor, on request, the name and telephone number of the firm who conducts the safety inspection.

e. The Contractor shall, in addition to daily measuring and recording of flue gas temperature, measure the excess oxygen present in the flue gas on a monthly basis. The Contractor shall adjust the air/fuel ratio to maintain as low an excess oxygen level as practicable while avoiding incomplete combustion and production of smoke and carbon monoxide. Automatic combustion trim controls shall be checked monthly and adjusted or repaired if found to be defective.

C.7.7.7 Maintenance and Repair of Distribution System:

a. The Contractor shall maintain and repair all (steam)

(HTHW) and condensate lines, as well as all system accessories, e.g., valves, traps, and cathodic protection devices. The distribution system contains both mechanical and electrical components. All distribution systems shall be maintained IAW TM 5-662, TM 5-653 and TM 5-654. (Cite tests, to include policy. Emphasis should be included in separate paragraph, if any exceptions for "hot work." Include necessary information on other site specific items such as manholes, poles, and carrier systems.)

b. The Contractor's response to emergency situations shall follow the criteria described in (specify). The Contracting Officer shall be notified of all emergency responses and shall be contacted again when an emergency is alleviated.

C.7.7.8 Summer Overhaul, Plants and Systems: The Contractor shall perform an annual summer overhaul of each boiler plant. Items of work, which cannot normally be accomplished when the boiler is in operation, shall be completed during this shutdown. Scheduling the time and duration of the shutdown shall provide minimum disruption to normal installation functions. The schedule shall be submitted to and be reviewed by the Contracting Officer at least 30 days in advance. The Contractor shall furnish the Contracting Officer a schedule of maintenance and repairs expected to be performed during the annual shutdown. (Specify period that must be allowed for review by the Contracting Officer.)

C.7.7.9 Laundry Support Equipment Maintenance: The Contractor shall maintain and repair laundry support equipment in building (specify). System reliability rates and required outputs are listed in (specify). The equipment shall be maintained to the standards listed in the manufacturer's recommendations.

C.7.7.10 Unattended Equipment Maintenance:

NOTE TO WRITER: Use this paragraph to list requirements concerning any unattended equipment listed in (specify).

C.7.7.11 Fuel Storage and Accountability: The Contractor shall monitor and account for all Government-owned fuel from the storage area to the boiler plants and from gas station pumps to vehicles. The Contractor shall report fuel consumption monthly to the Contracting Officer.

NOTE TO WRITER: Include a paragraph on fuel storage depending on local conditions and procedures. Maintenance of the fuel storage area and delivery systems will be included as part of the contract. (Include deliveries, if applicable, to family housing.) Water treatment chemicals used should be IAW TM 5-650. Deviations from this treatment scheme, especially use of propriety chemicals, must be approved by HQDA. USAEHSC can also provide recommendations regarding operation of water treatment equipment. The installation may wish to impose minimum requirements regarding facilities used by the Contractor for water testing including requirements for the following: Training and certification of personnel performing testing, use of standard test equipment and test procedures, age of laboratory testing reagents, laboratory cleanliness, and quantity and quality of glassware.

C.7.7.12 Water Treatment and Steam Boiler Systems: The heating plant and distribution water shall be maintained within the following tolerances. (Insert test laboratory requirements. Determine if testing contracts exist, etc., and also, any exceptions to be approved by the Operating Agency Commander.) The Contractor shall prepare boilers for required inspections by certified boiler inspection companies. Water treatment shall include the following: Sampling and testing of process water from all boilers that are active, on stand-by or are wet lay-up, softened water, dealkalized water and condensates. (Cite schedule for required testing and treatment of each category of process water.) Boiler testing schedules should be IAW TM 5-650, include operations and maintenance of softeners, dealkalizers, ion exchange, deaerators and boiler blowdown equipment. Cleaning shall be required when scaling becomes excessive (define) affects boiler operation and efficiency or risks damage to the boiler-site schedules for regeneration of ion-exchange equipment, operating temperature and pressure of deaerator (see TM 5-650) and frequency and length of boiler blowdowns.

NOTE TO WRITER: The following water treatment data should be revised to meet local operating conditions:

Steam Boilers

<u>Tests</u>	<u>Boiler Water Ranges</u>
Tannin Color	Light to Medium
Hydroxide (OH) (Causticity)	__ to __ ppm
Sulfate (SO)	__ to __ ppm
Phosphate (PO)	__ to __ ppm
Phosphate, minimum required for scaling control	__ ppm
Total Dissolved Solids (TDS) by Conductivity	__ to __ ppm

NOTE TO WRITER: Selected hot water boiler systems with cascade units or high makeup requirements should be treated as steam boilers.

Condensate

pH	__ to __
Hardness or Conductivity	__ to __ ppm

Softener

Hardness	__ to __
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Dealkalizer

Alkalinity pH	__ to __
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High Temperature Hot Water Boiler Systems

pH	__ to __
Hardness	__ to __ ppm
Sodium Sulfate	__ to __ ppm
(optional) Causticity	__ to __ ppm

Medium and Low Temperature Hot Water Boiler Systems

pH	__ to __
Hardness	__ to __
Level of Treatment Chemical	__ to __
(Optional) Causticity	__ to __

Laundry

<u>Tests</u>	<u>Boiler Water Ranges</u>
Daily Top Valve Test on Filters	Medium to Clear
Daily Bottom Valve Test on Filters	Clear
Daily Water Tank Samples	See Boiler Water Ranges above
Water Softener Samples (twice per month)	See Boiler Water Ranges above Under Water Treatment

C.7.7.13 Water Treatment - Hot Water Boiler Systems: The Contractor shall operate, maintain and repair, as applicable, all hot water boiler systems within the following tolerance. (Insert Army Laboratory test requirements. Treatment and testing requirements should be stated separately. e.g., high temperature hot water systems above 350 °F, larger low and medium temperature systems, systems with cascade units, and systems with large makeup rates. Water treatment includes sampling and testing of process water from all boilers and softened water. Specify any maintenance and operations for softeners, recirculating and expansion tanks.)

C.7.7.14 Gas/Fuel Lines and Systems: The Contractor shall maintain and repair, as necessary, all gas and fuel lines and systems. System components include all pipelines, storage facilities, distribution systems, pressure regulators and all other components needed to make up the complete system. (The system(s) (is) (are) protected by an (impressed current Cathodic Protective System) (Sacrificial Anode Cathodic Protection System). The Contractor's service shall include maintenance and repair of the protection system(s). The Contractor's personnel performing services on the cathodic protective system(s) must have formal training to include theory, testing, and maintenance.

a. Impressed current Cathodic Protective System: The Contractor shall perform routine monthly and annual test IAW RPMA Topic 29, Cathodic Protection System for underground utilities. Each month the Contractor shall test and record voltage and current output of all rectifiers, spot-check structure-to-soil potentials at test stations and other structure connections and insure that each rectifier and anode bed system is functional. Each year the

Contractor shall test and record all readings of all structure-to-soil potentials at all test stations, gas pipeline risers, regulators and POL tanks to include checking integrity of all associate electrical insulators (dielectric unions). Reading shall be taken with both the current-on and current-off. Structure-to-soil potentials that are not within acceptable range shall be reported to contracting officer within five (5) workdays. In locations where more than one (1) rectifier is influencing structure-to-soil potentials, reading shall be taken with each influencing rectifier interrupted and extent (sphere) of each rectifier determined and recorded.

b. Sacrificial Anode Cathodic Protection Systems: The Contractor shall perform monthly and semi-annual testing of sacrificial anode systems IAW RPMA Topic 29. Each month the Contractor shall spot check structure-to-soil potentials at test stations, other structures, and piping connections and insure that all sacrificial systems are functional. Each six (6) months the Contractor shall completely test all structure-to-soil potentials at all test stations, gas pipeline risers, regulators, and POL tanks, and check the integrity of all electric insulators (dielectric unions).

NOTE TO WRITER: Specify all maintenance requirements to include all systems and protective devices. The writer should indicate if fuel systems are of approved non-metallic materials or of coated cathodic protected steel, include welding, joints, fillings, valves, insulating couplings, cathodic protection, pressure tests, leak tests, quality of materials of linings and coatings, trenching, excavation, backfilling, removal of materials. etc. Specify response times to initiate/complete work, etc. Newly installed cathodic protective systems may have problems with stray current interference which must be found and removed. Testing for contact to other metallic structures may be necessary to locate deficiencies. Deficiencies may also include ground bed anodes, electrical discontinuity, rectifiers, wiring, test stations and dielectric unions, etc. Monthly, semi-annual, and annual reports are required on protective systems. Use of USAEHSC table IIA (Structure to electrolyte potential measurements and Dielectric testing, table M.5 (Rectifier Data) and table A (Test Station Data - Sacrificial) or similar forms must be determined and stated.

a. Reports: The Contractor shall maintain the following reports:

(1) Daily Boiler Plant Operating Log: Including operating data for air compressors and reclaimer located in building (specify). Maintain daily.

(2) Water Analysis Report for Laundry and Hospital: Maintain daily. (Mon-Fri, except holidays)

- (3) Fuel Status Report: Maintain daily. (Mon-Fri, except holidays)
- (4) Water Analysis Report for Boilers: Maintain weekly.
- (5) Facilities Engineering Operating Log for Boiler Plant: Maintain monthly.
- (6) Repair and Utilities Operating Log for Boiler Water Treatment: Maintain monthly.
- (7) Water Analysis Report: Maintain monthly. (Water samples must accompany report)
- (8) Utilities Inspection and Service Record: Maintain as required.
- (9) Fuel Receipt and Transfer Log: Maintain as required.
- (10) Facilities Engineering Work Request: Maintain as required.
- (11) Annual Boiler Inspection Report: Maintain annually.

b. Data: The following data are required to be collected and documented on an hourly basis:

<u>Reading</u>	<u>Unit of Measure</u>
Steam Pressure	lb/square inch
Steam Produced (Ea. Boiler in Use)	1,000 lb/hr
Total Steam Produced in Plant	1,000 lb
Fuel Used	gal
Evaporator Pounds Per Unit	lb/hr
Outside Temperature	F
Feedwater Heater (Deaerator)	
Pressure	lb/square inch(psig)
Temperature	F
Makeup Water	1,000 gal
Flue Gas Temperature	F
Temperature of Hot Water Supply	F

C.7.8 OPERATION, MAINTENANCE, AND REPAIR OF WATER PLANTS AND SYSTEMS:

C.7.8.1 Scope: The Contractor shall operate, inspect, maintain, and repair the water plant(s) and system(s). Facilities covered by this requirement are listed in attachment (specify). The water plant is a (specify) ft² facility with a design capacity of (specify) million gallons per day (mgal/d) built in (specify). The average daily flow is (specify) mgal/d. Treatment is accomplished by (flow-through sedimentation) (up-flow clarifier) (plain sedimentation) (or other consideration). The water source is a (river) (well) (lake). Effluent disposal is accomplished by (burial) (sewer) (storm drain) (recycle). The water distribution system consists of (specify) linear feet of (specify) inch water main, (specify) linear feet of (specify)-inch, lateral waterlines, (specify) main valves, (specify) elevated storage tanks (with) (without) installed cathodic protection) (specify) gallon capacity, (ground level storage tanks (type of construction (with) (without) installed cathodic protection), and (specify) (type) hydrants. The general age of the water distribution system and components is (specify) years. The general condition of the plants is (specify). The pumping station and lines are made of (specify) (material composition). (Also insert any ship-to-shore and oil/water separators.)

NOTE TO WRITER: The following documents are applicable to operation, maintenance, and repair of water plants and systems. Consolidate as applicable.

<u>No.</u>	<u>Title</u>
<u>DA Manuals and Technical Bulletins:</u>	
TM 5-660	Maintenance and Operation of Water Supply, Treatment, and Distribution Systems
TM 5-813-1	Water Supply - General Considerations
TM 5-813-2	Water Sources
TM 5-813-3	Water Treatment
TM 5-813-4	Water Storage
TM 5-813-5	Water Distribution Systems
TM 5-813-6	Water Supply for Fire Protection
TB MED 163	Swimming Pool Chlorination
TB MED 229	Sanitary Control and Surveillance of Water Supplies at Fixed

and Field Installations

TB MED 271	Fluoridation of Army Installation Water Supplies
TB MED 575	Swimming Pools and Bathing Facilities
TB MED 576	Sanitary Control and Surveillance of Water Supplies at Fixed Installations
	(insert National Pollution Discharge Elimination System (NPDES) and State sewage regulations)

Other Publications:

NFPA 70-B	
AWWA M-20	Water Clarification Principles and Practices
AWWA C601-68	Standards for Disinfecting Water Mains

NOTE TO WRITER: The following tasks and standards are written for a potable water system. If a nonpotable system is installed at the installation include the information and maintenance requirements.

C.7.8.2 Water Treatment and Plant Operation:

a. The Contractor shall operate, inspect, maintain, and repair all water treatment and plant equipment according to the manufacturer's instructions, and maintain output values and quality listed in (specify). Operating logs shall be maintained on all equipment as specified in attachment (specify). (Insert manning requirements, e.g., 24 hours per day, seven (7) days per week, each day of the year, etc.)

b. The Contractor shall maintain daily operating records IAW AR 420-46, to include pH readings, residual free available chlorine, raw water turbidity, finished water turbidity, pressure readings, chemical dosages, chlorine feed rates, filter backwash frequencies and flow rates, meter readings, and motor power usages. (If more frequent than daily, reword.)

c. Chlorinator operating records shall be maintained daily by the Contractor to show pounds of chlorine added daily, minimum chlorine residual in treated water during each day, in parts per million (p/m), and any unusual operating conditions or incidents regarding the chlorination operation.

d. The Contractor shall utilize AWWA Manual No. M3, M18, and M20 as applicable for plant safety procedures and recordkeeping. The Contractor shall control the water treatment processes, water distribution services and equipment, and deliver a sufficient volume of water to meet the system capacity at the required pressure to satisfy water needs in each portion of the system. Notification of any needed water cutoff for routine maintenance shall be given to the Contracting Officer not less than 24 hours prior to cutoff. The following unit processes and ancillary equipment shall be operated and maintained:

- (1) Raw Water Intake
- (2) Aeration
- (3) Chemical Feed Equipment
- (4) Chemical Mixing Equipment
- (5) Flocculation Basins
- (6) Sedimentation Basins
- (7) Up-Flow Clarifiers
- (8) Filtration
- (9) Disinfection
- (10) Pumping Equipment, Raw Water
- (11) Pumping Equipment, Backwash
- (12) Pumping Equipment, Distribution
- (13) Demineralization
- (14) Sludge Disposal Equipment

e. Water treatment and quality shall comply with

paragraph (specify), TB MED 576 and TM 5-660. Historical data showing amounts of various chemicals used are listed in (specify). If any substance, e.g., fluorides, iron, manganese, dissolved solids, etc., exceeds the requirement of the National Interim Drinking Water Regulations, the treatment shall be checked within (specify) for cause and adjusted or corrected by the Contractor. Water treatment measures shall produce a finished water product that is neither corrosive or scaling. Raw water sources (specify sources) and finished treated water shall be chemically analyzed daily for the following: pH, total hardness, suspended solids (turbidity), total alkalinity, chlorine, fluorides (and optional - Iron and manganese). Periodic analyses of silica, chlorides, sulfate and calcium hardness shall be performed as required to achieve a satisfactory product. Water treatment operations shall also meet Federal, State, and local environmental regulations. (Establish a range of values for pH, suspended solids, chlorine, fluoride, iron, and manganese. Effectiveness of water treatment can be measured by calculation of a Langelier Index based on finished treated water analyses. A specified acceptable range for the Langelier index should be established based on the operating history of the facility.)

f. Wells (insert as applicable to the installation).

C.7.8.3 Water Plant and Distribution System Maintenance: Plant maintenance tasks shall be performed by the Contractor in compliance with (specify guidelines) for each component. The areas around all equipment shall be maintained clean at all times. Electrical work shall be in compliance with paragraph (specify) NFPA 70B. All components shall be checked daily for proper operation and overheating of electrical drives and bearing, housings, excessive vibrations, and unusual noises. The Contractor shall perform routine maintenance IAW maintenance schedules and replace or repair items not functioning as designed or needing repair. This is inclusive of all plumbing requirements in the water treatment plant to include:

C.7.8.4 Chlorinator Room:

a. Chlorine piping from the cylinder shall be checked daily by the Contractor for excessive (specify) cooling and pressure reduction (specify acceptable ranges). Platform scale readings shall be checked to determine the total amount of chlorine used daily and if cylinders are empty. Empty chlorine cylinders shall be replaced with full cylinders in compliance with established (specify where found) safety procedures. Chlorine and chlorine handling equipment shall comply with all safety factors as specified in (chapter) (para) of AWWA M-20.

b. Chlorine room ventilating fan(s) shall be inspected daily by the Contractor for operation to remove fumes as designed. Cylinder storage area shall be under cover and cylinders not exposed to direct sunlight or extreme temperatures (specify acceptable ranges).

c. The steel surfaces in the chlorinator room shall be repainted annually by the Contractor with a primer coat and a good machine enamel (specify acceptable types) topcoat to prevent excessive corrosion from chlorine gas.

d. The Contractor shall take samples to insure that water quality meets the minimum standards in CFR (specify) and applicable (State) (and local) standards (specify). Samples failing quality tests indicate plant operation is faulty and steps shall be taken within (specify) to correct any such problem. Samples failing to meet standards will be reported to the Contracting Officer within (specify). Records of all samples shall be maintained to include date, value, and location. Number of samples and parameters to be tested shall be IAW CFR (specify).

e. Bacteriological samples shall be collected by the Contractor, preserved and delivered to the laboratory (cite location, etc.) in compliance with instructions of paragraph (specify), TB MED 576. If contaminated water samples are found, the Contracting Officer shall be informed within (specify) and remedial action outlined in paragraph (specify) TB MED 576 shall be followed.

f. Physical, chemical, pesticide, and radiological sampling shall be performed by the Contractor in compliance with instructions of paragraph (specify), TB MED 576.

g. The Government reserves the right to take, or require the Contractor to take and provide, water samples at any time and at any point in the treatment process or system to verify water quality.

h. Samples of water entering and leaving clarification components shall be obtained by the Contractor and observed for floc appearance or effectiveness in reduction of turbidity (specify frequency). When turbidity exceeds requirements of paragraph (specify), National Interim Primary Drinking Water Regulations, adjustments shall be made by Contractor to accurately meter the water and chemicals, or the Contractor shall trace the cause and correct within (specify).

i. The Contractor shall take samples of water (specify frequency) entering and leaving the water softening components and hardness content determined. When hardness of product water exceeds levels established by AR 420-46, adjustments shall be made by the Contractor to accurately meter the water and chemicals, or the Contractor shall trace the cause and correct within (specify).

j. The Contractor shall take daily samples of water entering and leaving the water taste and odor control components, and examine the sample for presence of

objectionable tastes and odors. When necessary, adjustments shall be made by the Contractor to accurately meter the water to the absorption or oxidizing treatment processes or follow applicable troubleshooting procedures to obtain an aesthetically acceptable drinking water quality.

k. Water shall be disinfected by the Contractor IAW (State) (or) (local) (specify regulation) requirements. Sampling and analysis of water shall be accomplished IAW para(s) (specify), TM 5-660, or (State) (local) requirements (whichever is more stringent), to provide required residual of disinfecting agent.

l. Samples of water entering and leaving the iron and manganese removal components shall be obtained daily by the Contractor and examined for iron and manganese content. When the iron and manganese content of the product water exceeds requirements of paragraph (specify), National Interim Secondary Drinking Water Regulations, the water treating compounds shall be adjusted by the Contractor or checked for the cause and be corrected by the Contractor within (specify).

m. Samples of water entering and leaving the demineralization components shall be obtained by the Contractor daily and examined for total dissolved solids content. If total dissolved solids content of product water exceeds the requirements of paragraph (specify), National Secondary Primary Drinking Water Regulations, the water treating components shall be adjusted by the Contractor or checked for the cause and be corrected by the Contractor within (specify).

n. The Contractor shall conduct fluoridation of water IAW paragraph (specify), TB MED 271. Samples of water entering and leaving the water treatment facility shall be obtained (specify minimum period) and examined for fluoride content by the Contractor. If requirements of National Interim Primary Drinking Water Regulations are not being met, the Contractor shall adjust each water treatment component or check and correct within (specify). The Contractor shall ensure that fluoride safe water is produced at all times.

C.7.8.5 Distribution System:

a. The Contractor shall maintain the water distribution system in a fully operational condition. The system includes all storage tanks, booster stations, water mains, service lines, hydrants, valves, and meters as shown in the distribution drawing in (specify where found). The Contractor's work and service includes all water system components. All water control valves shall be exercised (operated) annually (specify month) and records kept.

b. Malfunctions in the water system such as stoppages,

structural failures, overloading, mechanical failures, electrical failures, etc., shall be traced to the cause and corrected by the Contractor (specify response time).

c. Fire hydrants and deadends shall be flushed and flow tested once each year in the (spring) or (fall). (Specify months/interval.)

d. The Contractor's electrical work shall comply with NFPA-70.

e. Emergency repair shall be performed by the Contractor as required. Repair includes broken water mains, joint leaks, broken service lines, damaged fire hydrants, etc., as applicable. Disinfection of existing mains after repair or cutting into shall be performed IAW paragraph (specify), AWWA Standard C601-68.

f. Maps, as-built plants, and records shall be kept up-to-date by the Contractor indicating flushing of water mains, accounting for water leaks; new service lines; handling of red, black, and sandy water problems; and location of potential cross connections.

g. All safety equipment shall be maintained in a fully operational condition by the Contractor at all times.

h. The Contractor shall maintain a backflow prevention and cross-connection control program.

NOTE TO WRITER: Identify any Industrial Waste Treatment Plants or Systems and any associated special requirements. Address grease trap maintenance. Reports are covered in the specific facility to be operated and maintained. The writer will identify the reports to the function and insert as applicable. The Contractor shall submit monthly copies of the daily operating logs and a monthly overall summary of operations and maintenance tasks performed not later than the fifth calendar day of the following month to the Contracting Officer.

C.7.8.6 Water Storage Facilities (Water Tank) Maintenance and Protection: The Contractor shall maintain and repair, as specified, all water tanks and all cathodic protection systems on metallic water tanks. Coating maintenance and repair shall be IAW RPMA Topic 18 - "Water Storage Tank Painting." Cathodic Protection System maintenance and repair shall be IAW RPMA Topic 28 - "Cathodic Protection of Steel Water Tanks." As a minimum, the Contractor shall perform the following:

a. Monthly. Once each month, or more often if

necessary, the Contractor shall test the voltage and current outputs on the rectifiers and check tap settings. Reading shall be verified each six (6) months by use of a suitable voltmeter/ammeter (or combinations) as required. All readings shall be recorded.

b. Annually. Once each year, the Contractor shall inspect all anodes and anode wiring and measure and record representative tank-structure-to-water potentials inside the water tanks. Rectifier output(s) shall be adjusted to maintain the required range/ratio of all interior surfaces (-1.0 V to -1.5 V for manual rectifier systems and -0.9 V for automatic systems). The Contractor shall inspect and report to the Contracting Officer condition of both outer and interior coatings, to include any flaking, peeling, and rust. The Contractor shall also note and report all safety and structural defects. All defects shall be corrected IAW levels of work established elsewhere herein.

NOTE TO WRITER: In areas where substantial icing damage to water tank cathodic protection systems is a problem, the installation could require yearly maintenance and repair during the spring of each year to both water tanks and their protective systems. Consideration should also be given to require specialized ice free systems in addition to

general requirements of Corps of Engineer Guide Specification (CEGS)/16641. General mechanical maintenance of water tanks should be coordinated with annual testing and maintenance schedules. Reports applicable to this part are daily water analyses of potable water, monthly, and annual water tank cathodic protection rectifier inspection and annual water tank cathodic protection coating inspection.

NOTE TO WRITER: Insert any operating, maintenance, or repair requirements the installation may need for solar heating systems to include any water treatment or cathodic protection systems. Also include requirements for treatment for swimming pools, or other systems with cathodic protection systems.

C.7.9 OPERATION, MAINTENANCE, AND REPAIR, OF WASTEWATER PLANTS AND SYSTEMS:

C.7.9.1 Scope: The Contractor shall operate, inspect, maintain, and repair the wastewater plant(s) and collection system(s) in strict accordance with the terms and conditions of the contract. Performance shall be according to the standards contained in (specify) and comply with the directives listed in (specify). Facilities and equipment are listed in attachment (specify). (Insert manning requirements, hours of operation, etc.)

C.7.9.2 Description of Facilities and Equipment:

a. The wastewater treatment plant is a (specify)-ft² facility with a design capacity of (specify) mgal/d built in (specify). The average daily flow is (specify) mgal/d. Treatment is accomplished by (primary) (secondary) (tertiary processes). Effluent disposal is accomplished by (surface discharge) (land disposal).

b. The wastewater collection system consists of (specify) linear feet of (specify)-inch sanitary sewer lines, (specify) linear feet of (specify)-inch lateral sewer lines, and (specify) sewage lift stations. The general age of the wastewater collection system is (specify) years.

NOTE TO WRITER: This paragraph may be used to show output quality requirements or an attachment may be used if extensive.

C.7.9.3 Required Outputs: (insert required information):

a. Average daily quantities of the following chemicals were used for wastewater treatment during the last year (lb/d).

Alum	_____
Ferric Chloride	_____
Lime	_____
Chloride	_____

Sulfur Dioxide _____
Other (List) _____

b. Wastewater Collection System Drawings: (insert as applicable):

***NOTE TO WRITER:** The reliability rate figure is the key to measuring Contractor performance. Insure that the percentages are derived with the total system in mind. Reliability rates can be used for individual system components or the entire system.*

Wastewater Treatment Plant, Major Components:

<u>Bldg No.</u>	<u>Component</u>	<u>Manufacturer</u>	<u>Installed</u>	<u>Reliability Rate</u>
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GFE Inventory (Emergency Standby Items):

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>
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***NOTE TO WRITER:** The following documents are applicable to wastewater plant and system services. Consolidate as applicable.*

Government Regulations and Manuals:

<u>No.</u>	<u>Title</u>
TM 5-665	Operation and Maintenance of Domestic and Industrial Wastewater Systems
TM-5-814-1	Sanitary and Industrial Waste Sewers
TM 5-814-2	Sewage and Industrial Waste Pumping Stations
TM 5-814-3	Domestic Wastewater Treatment
TM 5-814-8	Evaluation Criteria Guide for Water Pollution Prevention Control and Abatement Program

Water Pollution Control Federation (WPCF) Manuals:

<u>No.</u>	<u>Title</u>
MOP 1	Safety and Health in Wastewater Systems
MOP 2	Utilization of Municipal Wastewater Sludge
MOP 4	Chlorination of Wastewater
MOP 5	Aeration in Wastewater Treatment
MOP 7	Operation and Maintenance of Wastewater Collection Systems
MOP 11	Operation of Wastewater Treatment Plants
MOP 16	Anaerobic Sludge Digestion
MOP 17	Paints and Protective Coatings for Wastewater Treatment Facilities
MOP 20	Sludge Dewatering
MOP 21	Instrumentation in Wastewater Treatment Plants
<u>No.</u>	<u>Title</u>
MOP 22	Odor Control for Wastewater Facilities
MOP OM-1	Wastewater Sampling for Process and Quality Control
MOP OM-3	Plant Maintenance Program
MOP OM-4	Industrial Wastewater Control Program for Municipal Agencies
MOP FO-1	Sludge Thickness
MOP FD-2	Energy Conservation in the Design and Operation of Wastewater Treatment Plants
MOP FD-3	Pretreatment of Industrial Wastes

SM-1 Laboratory Management

Energy Conservation at Wastewater
Treatment
Plants
Simplified Laboratory Procedures for
Examination of Wastewater

NFPA-70

Industrial References:

American Water Works Association, Water Pollution Control
Federation, and American Society of Engineers

Standard Methods for the Examination of Water and
Wastewater:

Manufacturers' operating and maintenance bulletins, parts/spare
parts, drawings, etc., for all equipment.

C.7.9.4 Wastewater Treatment and Plant Operation:

a. The Contractor shall utilize WPCF Manual MOP/11
(or the applicable TM) for plant safety procedures (specify and
indicate paragraphs, etc.) and recordkeeping. The Contractor
shall operate, maintain, and control the collection and treatment
of wastewater and the ultimate disposal of the processed water,
as well as the separated solids, in a manner that is safe and meets
all Federal and State environmental regulations (specify as
applicable). All components in the following systems shall be
operated and maintained:

- (1) Pump stations
- (2) Gravity sewers
- (3) Force mains
- (4) Manholes
- (5) Pretreatment
- (6) Primary treatment
- (7) Secondary treatment
- (8) Tertiary treatment
- (9) Sludge treatment and disposal

b. The Contractor shall respond to changes in the
collected wastewaters, recognize potential treatment problems,

and institute corrective action when necessary. If minimum
effluent standards (i.e., NPDES permit levels) are not obtained,
the Contracting Officer shall be notified within (specify).

c. The Contractor shall provide daily cleaning of all
wastewater treatment components. Cleaning shall include
emptying of all screen baskets, removing all scum buildup and
floating solids, removing algae growths and cleaning walls of
equipment, removing blockages in lines, removing grease and
floating solids from wet wells and other parts of the plant. Daily
cleaning shall be performed as required to reduce objectionable
or unpleasant odors.

d. Water Pollution Monitoring: The Contractor shall
obtain and furnish data to meet EPA, NPDES permit
requirements, and State pollution standards (specify where
found) for receiving waters. Water pollution monitoring
includes wastewater flow measurements, sampling and analytical
analyses, and shall be in compliance with the NPDES permit and
Standard Methods for the Examination of Water and
Wastewater. Installation laboratories shall be used. (Insert
location of installation laboratories, or specify requirements for
Contractor to perform the tests.)

C.7.9.5 Wastewater Treatment Plant Maintenance:

a. The Contractor's plant maintenance tasks shall be
performed in compliance with basic guidelines (specify the
guidelines) for each component and IAW established (specify
where found) health practices. The areas around all equipment
shall be maintained clean at all times. Electrical work shall be
in compliance with NFPA-70B. All components shall be
checked daily by contractor for proper operation and overheating
of electrical drives and bearing housings, excessive vibrations,
and unusual noises. The Contractor shall perform preventive
maintenance services and replace or repair items not functioning
properly (define) or needing repair. This includes all plumbing
requirements in the Wastewater Treatment Plant.

b. The Contractor's maintenance tasks shall be
performed in compliance with paragraph (specify), WPCF
Manual No. 7, the applicable TM (specify), IAW with
equipment manufacturer's instructions and recommendations,
and plant requirements.

c. Standby equipment components (identify as standby
or backup equipment for emergency use), such as electrical
generators and power supply, shall be operated and maintained
by the Contractor IAW applicable manufacturer's
recommendations and instructions, and plant requirements.

d. Chlorine piping in chlorination room from the
cylinder shall be checked daily by the Contractor for excessive

cooling (specify acceptable range) and pressure reduction (specify acceptable range). Platform scale readings shall be checked to determine the total amount of chlorine used daily and when cylinders are empty. Empty chlorine cylinders shall be replaced with full cylinders in compliance with established safety procedures (specify where found). Chlorine and chlorine handling equipment shall comply with all safety factors as specified in paragraph (specify), WPCF No. 4.

(1) Chlorination room ventilating fan(s) shall be inspected daily by the Contractor for operation as designed to remove fumes. Cylinder storage area shall be under cover and not exposed to direct sunlight or extreme temperatures (specify acceptable ranges).

(2) Steel surfaces in the chlorination room shall be repainted annually by Contractor with a primer coat and a machine enamel (specify acceptable types) topcoat to prevent excessive corrosion from chlorine gas.

e. Water Sampling: The Contractor shall take daily samples to ensure that water quality meets the minimum standards specified. Records of all samples shall be maintained, e.g., date, value, location.

NOTE TO WRITER: The installation must monitor records closely and require an explanation for any noncompliance with requirements. The records will be used as a major factor when conducting contract performance evaluations.

C.7.9.6 Collection System Maintenance:

a. The Contractor shall maintain the wastewater collection system in an operational condition at all times. The system includes all mains, service lines, and lift stations. The Contractor's work shall include all system components.

b. Malfunctions in the system such as stoppages, structural failures, overloading, mechanical failures,

electrical failures, etc., shall be traced to the cause and corrected by the Contractor. (Specify any time frames.)

c. The Contractor's electrical work shall comply with NFPA-70.

d. Emergency repair shall be performed by the Contractor as specified. Repair includes broken mains, joint leaks, broken service lines, siphons, lift stations, manholes, etc., as applicable. (Specify time frames.)

e. Maps, as-built plans, and records shall be kept up-to-date by the Contractor and shall indicate flushing of mains, account for leaks, new service lines, and location of potential cross connections.

NOTE TO WRITER: Manhole/line flushing frequency may need to be adjusted based on local conditions. Installation should reword as applicable.

f. The Contractor shall flush at least one-third of the wastewater manholes and main lines annually on a rotating basis each contract year. Water for hydraulic cleaning of sewers shall be effluent from the plant if available.

C.7.9.7 Safety: Safety equipment shall be maintained by the Contractor in a fully operational condition at all times.

NOTE TO WRITER: Reporting requirements are listed below. Identify to function and consolidate as applicable. The Contractor shall submit monthly copies of the daily operating logs, DA Forms 4178 and 4247, and a monthly overall summary of operation and maintenance tasks performed.

a. Monthly/Annual Maintenance Plan:

Date of Submission: (specify) days prior to start date and update monthly by 25th calendar day of month.

b. Monthly Summary Report:

Date of Submission: (specify) days prior to start date, update monthly by fifth calendar day of month.

c. Equipment File:

Date of Submission: Maintain up-to-date as required.

d. Operating Logs:

Date of Submission: 30th day of Contractor operation, update daily and submit (specify) copies. The Contractor shall maintain the daily plant and system operating logs. These logs shall be completed and made part of the wastewater treatment plant file to be kept in the plant throughout the contract period. Logs will be subject to inspection by the Contracting Officer. The following pump station information shall be recorded:

- (1) Time of daily inspections conducted by the operator.
- (2) Daily power meter readings kWh used per day.
- (3) Operating pressures if pumps are equipped with pressure gauges.
- (4) Hours of equipment in service.
- (5) Bar screens, dish screens, pulverizers, and grinders: total cubic feet of screening per month. Calculated cubic feet of screening per million gallons of wastewater treated. Method of screening disposal.
- (6) Clarifier:
 - (a) Clarifier influent and effluent, settleable solids, pH, suspended solids, and biochemical oxygen demand (BOD).
 - (b) Sludge volume removed, pH, percent solids, percent volatile matter.
 - (c) Change in number of clarifiers in operation.
 - (d) Volume of sludge removed and returned or recirculated to raw sewage or other plant units.
 - (e) Volume and disposition of skimmings.
 - (f) Remarks on operating difficulties.
- (7) Sludge digesting tank (Imhoff):

(a) Settleable solids and pH in influent and effluent. Suspended solids and BOD tests are determined by Contractor when required.

(b) Number of units in operation. Depth of sludge below slots.

(c) Percent solids and percent volatile suspended solids in digested sludge.

(d) Record of skimming, slot cleaning, and scum breaking.

(e) Sludge removal showing date, tank and hopper number, and volume in gallons.

(f) A log listing all unusual operating conditions such as foaming or need of lime application.

(8) Sludge drying beds:

- (a) Total gallons drawn to beds.
- (b) Average pH, percent solids, and volatile solids.
- (c) Total cubic yards of sludge removed.
- (d) Average drying time in days.
- (e) Date, volume in gallons, and depth in inches of sludge applied to each bed by bed number.
- (f) Results of pH, percent solids, and percent volatile solids of each sludge withdrawal.
- (g) Date, volume in cubic yards, and disposition of sludge removal from each bed.

(9) Trickling filter:

- (a) Filter influent and effluent, dissolved oxygen, suspended solids, BOD, pH, total solids, ammonia, nitrite, nitrate, and total Kjeldahl nitrogen.
- (b) Rate of flow to filter, including recirculated filter effluent.
- (c) Source of recirculated flows to the filter.

(d) Record for cleaning and replacement of distributor nozzles or spray heads.

(e) Record for maintenance performed on filter.

(f) A log listing any unusual operating conditions or incidents regarding filter operations.

(10) Oxidation ponds:

(a) BOD

(b) Nitrogen

(c) Chlorine residual

(d) Influent and effluent flow

(e) Suspended solids

(f) Fecal coliforms

(g) pH

(h) Dissolved oxygen

(i) Water temperature

(j) Air temperature

(k) Weather conditions including wind direction

(l) Total dissolved solids

(11) Activated sludge aeration tank: BOD, dissolved oxygen, settleable solids, suspended solids, pH, ammonia, nitrite, and nitrate.

(12) Anaerobic digestion:

(a) Gallons raw sewage pumped.

(b) Percent solids and volatile matter in raw sludge.

(c) Sludge digester analyses showing temperature, pH, percent solids, and percent volatile solids at specified sampling points or depths.

(d) Cubic feet of gas produced daily.

(e) General appearance and disposition of supernatant liquid, checking for color, and suspended or floating solids.

(f) Gas analysis when made.

(g) Volatile acids to alkaline.

(h) Hours of pumping raw sludge.

(i) Temperature of water to and from heating coils.

(j) Depth of sludge in tanks.

(k) Dates at which sludge is drawn from digester.

(l) Remarks on foaming or other special operating conditions.

(13) Contact aeration:

(a) Gallons of raw sewage pumped.

(b) Percent solids and volatile suspended solids in raw sludge.

(c) Sludge digester analyses showing temperature, pH, percent solids, and percent volatile solids at specified sampling points or depths.

(d) Hours of pumping raw sludge.

(e) Depth of sludge in tank.

(f) Dates at which sludge is drawn from digester.

(14) Contact stabilization:

(a) Gallons of raw sewage pumped.

(b) Percent solids and volatile matter in raw sewage.

(c) Analysis of sludge in contact aeration tank, clarifier, contact tank, and sludge digester showing temperature, pH, percent solids, and percent volatile solids.

(d) Hours of pumping raw sludge.

(e) Depth of sludge in tanks and digester.

(f) Dates at which sludge is drawn from digester and transferred to drying beds.

(15) Chlorinator:

- (a) Pounds of chlorine added daily.
- (b) Minimum chlorine residual in the final effluent, p/m.
- (c) Remarks indicating any other point of chlorine application and estimate of chlorine used at each point.
- (d) A log listing any unusual operating conditions or incidents regarding the chlorination operation.

C.7.10 OPERATION, MAINTENANCE, AND REPAIR OF AIR-CONDITIONING AND REFRIGERATION PLANTS AND SYSTEMS:

C.7.10.1 Scope: The Contractor shall operate, inspect, maintain, and repair all air-conditioning and refrigeration plants and systems. The term, air-conditioning and refrigeration plants and systems, includes all such equipment, notwithstanding size or capacity to include individual units in family housing. Attachments (specify) provides a description of the plants and systems (insert operating hours, manning requirements, etc.). The Contractor shall develop and implement an effective chemical program to prevent scale and corrosion in all (specify) air-conditioning and refrigeration parts and systems.

NOTE TO WRITER: The following documents are applicable to operation, maintenance and repair of air-conditioning and refrigeration plants and systems. Consolidate as applicable. The references must be reviewed and revised to meet local requirements.

Regulations

<u>No.</u>	<u>Title</u>
AR 420-53	Refrigeration
AR 420-54	Air Conditioning, Evaporative Cooling, Dehumidification, and Mechanical Ventilation
TM 5-670	Repairs and Utilities, Refrigeration Air-Conditioning, Mechanical Ventilation and Evaporative Cooling.

TM 5-671 Preventive Maintenance for Refrigeration, Air-Conditioning, Mechanical Ventilation and Evaporative Cooling
U.S. Army Technical Report M-280, June 1980
(Selection of Cooling Water Treatment at Military Construction Engineering Research Corrosion.)
Laboratory (USACERL)

Industrial References:

Manufacturers' operating and maintenance bulletins, parts/spare parts lists, drawings, etc., for all equipment included in air-conditioning and refrigeration systems for the installation, site or post.

Kent's Mechanical Engineers Handbook, latest edition (two volumes), John Wiley and Sons Inc.

Standard Handbook for Mechanical Engineers, latest edition, Baumeister & Marks

ASHRAE Guide and Data Books, latest editions.

ANST standards, as applicable.

ARI standards, as applicable.

C.7.10.2 Operate Equipment: The Contractor shall operate, inspect, maintain, and repair the equipment according to manufacturer's instructions, and maintain specified space temperature values listed in (specify). The Contractor shall maintain hourly operating temperature records for all cold storage rooms. The records shall be maintained for a six (6) month time frame. All records shall be available for inspection by the Contracting Officer.

C.7.10.3 Equipment Maintenance and Repair: All equipment maintenance and repair provided by the Contractor shall meet or exceed the overall reliability rates expressed in (specify). The quality of work accomplished by the Contractor shall meet manufacturer's specifications or applicable documents as listed in (specify). Critical air conditioning and refrigeration systems are located (specify). (List all systems that must operate 24 hours per day. i.e., computer systems, cold storage plants, etc.). Repairs to all critical systems shall be an emergency priority.

C.7.10.4 Instrument and Control Systems: The Contractor shall inspect, maintain, and repair all instrument and control systems. Critical systems shall be noted in the Contractor's work schedules. The Contractor shall insure that control systems operate and function in such a manner to maintain the specified space temperatures of the mechanical system they control. These space temperatures are listed in (specify). Administrative and noncritical facilities shall be kept at 78 degrees F during cooling season and 68 degrees F during heating season. (Specify any allowable variation. List facilities temperatures, latest regulations, and specify in conformance with designated use of buildings, consider inclusion of any Energy Monitoring and Control System (EMCS) repair and maintenance requirements, etc.)

C.7.10.5 Air-Conditioning and Ventilation Equipment: The Contractor shall insure efficient and effective operation of the air-conditioning and ventilation systems. The Contractor shall maintain the required outputs for each type of equipment. Critical air-conditioning systems and facilities are located at (specify). In addition, the Contractor shall provide water treatment as follows:

a. Closed Loop Systems: The Contractor shall provide water treatment for closed loop chilled and dual chilled/heating water systems for control of corrosion, scale, and antifreeze protection. These systems shall be chemically analyzed for pH, conductivity hardness, and level of treatment chemical as a minimum. Water analyses shall be performed (specify). (Installation will specify treatment interval). Treated chilled and dual water systems shall be isolated from the potable water supply by air gap or backflow preventers as required by local health and plumbing codes. The Contractor shall keep closed loop systems watertight. The Contractor shall maintain logs of chemical test data and maintenance for closed loop systems.

b. Large Cooling Towers-150 Ton Capacity or Greater: The Contractor shall treat cooling towers of 150 ton capacity, or greater, with a phosphate/polymer/copper corrosion and scaling inhibitor or equivalent approved chemical program which includes both corrosion and scale inhibiting properties. Treatment shall include operation and maintenance of any automated control equipment present (Use of automatic bleed off controllers and automatic pump feed systems including pulsing type water systems are recommended for all towers in this size range. Installations lacking these are advised to consider their purchase and installation). The Contractor shall conduct daily analyses of cooling tower water for conductivity and level of treatment chemicals present. Periodic chemical analyses of installation makeup water supplies shall be conducted by the Contractor (weekly) (weekly is recommended). (Weekly) analyses of makeup water shall include pH and conductivity, as a minimum.

c. Treatment of Small Cooling Towers (Less than 50 tons capacity): The Contractor shall treat cooling towers of less than 50 ton capacity with a glassy sodium hexametaphosphate polyphosphate type chemical for inhibition of corrosion or scale and provide adjustable continuous bleed off. The Contractor shall conduct cooling tower water analyses weekly for conductivity and pressure of treatment chemical (specify testing requirements).

d. Treatment of Towers Between 50 and 150 Ton Capacity: These towers shall be treated by the Contractor with either the scheme in C.5.5.6.2 or C.5.5.6.3 above, as appropriate, dependent on relative tower size, tower importance, extent of usage, and length of the cooling season.

e. Reports required: Daily analyses of large cooling towers Weekly analyses of small cooling towers. Periodic analyses of closed loop systems. Inspection reports of close loop systems.

NOTE TO WRITER: The following must be rewritten to meet the specific need. Insert as applicable, any minimum frequencies for maintenance, etc. C.7.10.6 a through i relates to workload requirements.

C.7.10.6 Component Inspection, Operation, Preventive Maintenance, and Repair: The Contractor shall inspect, operate, provide preventive maintenance, or repair (specify intervals) the following:

a. Instrument and Control Systems: The control systems are (pneumatic) (electric) (or a combination of both) (direct digital), (computerized) or combinations thereof, and are installed in (specify) facilities as shown in (specify).

b. Cold Storage Facilities and Refrigeration Equipment: Cold storage facilities and refrigeration systems are (reach-in) (walk-in) type coolers or freezers with associated direct expansion evaporators, reciprocating or hermetic compressors, interconnecting piping, and outdoor or integral air-cooled condensers. The contract includes (specify) cold storage plants and associated

refrigeration systems in (specify) facilities. (Include defrost equipment as applicable in this paragraph.)

c. Liquid Chillers and Compressors: Liquid chillers are (both) (absorption chiller units) (and) (conventional chiller units) powered by (reciprocating) (centrifugal) (electric motors) (turbines) (internal combustion engines), etc.). The contract includes (specify) liquid chiller units in (specify) facilities.

d. Evaporative Coils (DX Type), Chilled Water Coils, and Coolers: Evaporator coils are (direct expansion) (DX type) which consist of piping, an expansion valve, or similar devices. The coil may be duct-mounted or a fan could be mounted behind the coil to drive air through the coil. Cooler units are cylindrical heat exchanger units used in HVAC or refrigeration work. Plate-type heat exchangers are also used in cooler applications. Evaporators, chilled water coils, and coolers are component assemblies of larger systems; however, in certain situations, such as in areas of ample river water or cool water supply, these component units are as separate system entities in themselves. The contract includes (specify) evaporator coils and cooler units in (specify) facilities.

e. Air-Cooled Condensers: Air-cooled condensers are outdoor units, rooftop or ground mounted, and can be horizontal or vertical (smaller) with single or multiple banks of coils, fans, and casings. Fan drives are constant, variable, or intermittent cycle type with special screens and damper provisions added for cold weather operation. An air condenser is a major component assembly of a refrigeration or air-conditioning system. The contract includes (specify) air condensers or air-cooled condensers in (specify) facilities.

f. Cooling Towers and Evaporative Condensers: Cooling tower units are (indoor) (outdoor) units, rooftop or ground mounted, with single or multiple cells. Tower air can flow as induced (or forced) by mechanical draft fans or by natural draft as in a hyperbolic tower. Evaporative-cooled condensers operate on the same principle as a cooling tower. In practice, small cooling towers are labeled evaporative condensers whether they are open or closed tube type. Evaporative condensers are mounted indoors as well as outdoors. A cooling tower or evaporative condenser is a major component assembly of a refrigeration or air-conditioning system. The Contractor shall provide water treatment for cooling tower water for control of corrosion and scale, control of organic growth, and antifreeze protection. The contract includes (specify) cooling towers and evaporative condensers at (specify) facilities.

g. Unit Air-Conditioners and Air Handlers (more than 5 tons): Unit air-conditioners are rooftop-mounted units, unitary type, or air-handling units (fans and coils only) installed in equipment penthouses or storage service areas. The units are

package-type units which contain major components and unit sections to make up a definable system, or air-handling units with remote compressor, condenser, or heating sections. While there is a wide difference in components used and arrangements available among various manufacturers, most units are packaged in one enclosure and contain reciprocating or hermetic compressors, DX evaporator coils or chilled water coils, blowers with motors and belt drives, mixing box, filters, dampers, heating coils, and air-cooled condensers. The contract includes (specify) unit air-conditioners at (specify) facilities. Air filters shall be changed every (specify) months throughout the operating season of the equipment.

h. Evaporative Air Coolers: Evaporative air coolers are (wetted pad- type) (slinger-type) (rotary-type) coolers. These units may contain fans and motors, evaporative pads, water recirculating pump, water tank, eliminators and baffles, water slingers, and motorized rotary disks. The contract includes (specify) evaporative air coolers at (specify) facilities.

i. Ventilating Systems: Most of the ventilating systems in the administrative office areas are included in the air-handling equipment of the heating and air-conditioning systems. Other ventilating equipment in the system includes the exhaust fans in the restrooms and the roof ventilators in the administrative office areas. The number of exhaust fans included in the ventilating system is shown in (specify). The contract includes (specify) fans located in (specify) facilities. (Include chilled water lines between buildings as applicable.)

C.7.10.7 Acceptability: The systems shall be maintained free from defect and damage, no components shall be missing, all parts shall be tight, and the components shall operate as designed. As applicable, all parts shall be lubricated and all fluids shall be maintained at required levels, etc.

C.7.11 MAINTENANCE, REPAIR, AND MINOR CONSTRUCTION, BUILDINGS AND STRUCTURES:

NOTE TO WRITER: *This section includes hospital maintenance requirements. These must be removed if a separate contract is used. Insert a schedule to show the plans/records/ reports/programs/etc., for which the Contractor will be responsible.*

C.7.11.1 Scope: The Contractor shall service, maintain, repair, or construct all buildings and structures as shown (specify). All services shall be performed IAW applicable National Codes, Department of the Army regulations, Army technical manuals, Army publications, and all Federal, State and local laws and all manufacturers' recommendations (specify where found). Maintenance, repair, alteration and construction of buildings and

structures shall include structural framing system foundations, walls, doors, windows, roofing, floors and floor coverings, porches, stairs, fixtures, hardware, exterior and interior painting, glazing, roofing, interior plumbing, interior electric, carpentry, masonry, interior heating and air-conditioning equipment, elevators, and other equipment affixed as part of the building, i.e., fencing, playground equipment, flagpoles, guard and watch towers, grease racks, unattached loading ramps, training facilities other than buildings, monuments, grandstands and bleachers, elevated garbage racks, laundry facilities and equipment, Reserve Centers (etc.), and other miscellaneous structures (specify).

NOTE TO WRITER: The following documents apply to maintenance and repair of buildings and structures. Consolidate as applicable.

<u>No.</u>	<u>Title</u>
<u>Army Regulations:</u>	
AR 190-11	Physical Security of Arms, Ammunition, and Explosives
AR 210-50	Housing Management
AR 420-41	Utilities Contracts
AR 420-43	Electric Services
AR 420-54	Air-Conditioning, Evaporative Cooling Dehumidification, and Mechanical Ventilation
AR 420-55	Food Service and Related Equipment
AR 420-81	Custodial Services
AR 710-2	Supply Policy Below the Wholesale Level
AR 750-20	

Department of the Army Pamphlets:

DA PAM 385-1 Unit Safety Management
DA PAM 385-3 Protective Clothing and Equipment

Technical Manuals:

TM 5-551K	Plumbing and Pipefitting
TM 5-581B	Construction Drafting
TM 5-609	Military Custodial Services Manual
TM 5-610	Facilities Engineering Buildings and Structures, Preventive Maintenance
TM 5-611	Repairs and Utilities: Post Engineer Shops
TM 5-615	Repairs and Utilities: Concrete and Masonry
TM 5-617	Facilities Engineering: Inspection, Maintenance, and Repair of Roofing Systems

TM 5-618
TM 5-620

TM 5-625
TM 5-636

TM 5-640

TM 5-642
TM 5-643

TM 5-644
TM 5-646
TM 5-650

TM 5-651

TM 5-652

TM 5-653

TM 5-654

TM 5-660

TM 5-662

TM 5-665

TM 5-670

Paints and Protective Coatings
Buildings and Structures Caulking and Glazing
Repairs and Utilities: Sheet Metal
Kitchen Equipment: Repairs and Utilities
Ranges, Bake Ovens and Burners for Mess Equipment; Repairs and Utilities
Warm-Air Furnaces: Repair and Utilities
Repairs and Utilities: Preventive Maintenance for Heating Plants and Systems
Boiler Heating: Repairs and Utilities
Space Heaters: Repairs and Utilities
Repairs and Utilities: Central Boiler Plants
Central Boiler Plants: Inspection and Preventive Maintenance Service
Steam, Hot Water, and Gas Distribution Systems; Repairs and Utilities
Steam, Hot Water, and Gas Distribution Systems; Inspection and Preventive Maintenance Service
Maintenance and Operation of Gas Systems
Operation of Water Supply and Treatment, and Distribution Systems
Swimming Pool Operation and Maintenance
Operation and Maintenance of Domestic and Industrial Wastewater Systems
Repairs and Utilities: Refrigeration, Air-Conditioning, Mechanical Ventilation, and Evaporative Cooling

TM 5-671	Repairs and Utilities: Preventive Maintenance for Refrigeration Air-Conditioning, Mechanical Ventilation, and Evaporative Cooling	TM 5-813-5	Water Supply: Water-Distribution Systems
TM 5-678	Repairs and Utilities: Petroleum, Oils and Lubricants	TM 5-813-6	Water Supply for Fire Protection
TM 5-682	Electrical Facilities	TM 5-813-7	Water Supply for Special Projects
TM 5-683	Safety Electrical Interior Facilities	TM 5-814-1	Sanitary and Industrial Wastewater Collection
TM 5-695	Maintenance of Fire Protection Systems	TM 5-814-2	Sanitary and Industrial Wastewater Pumping Stations
TM 5-745	Heating, Ventilation, Air-Conditioning, and Sheet Metal Work	TM 5-818-6	Grouting Methods and Equipment
TM 5-760	Interior Wiring	TM 743-200-2	Storage Modernization
TM 5-764	Electric Motor and Generator Repair	TM 743-200-3	Storage and Materials Handling
TM 5-803-10	Planning and Design of Outdoor Sports Facilities	<u>National Codes:</u>	
TM 5-803-11	Children's Outdoor Play Areas	Latest Edition	National Plumbing Code Illustrated
TM 5-803-12	Planning of Outdoor Recreation Areas	Latest Edition	Manual of Uniform Traffic Control Devices
TM 5-805-1	Standard Practice for Concrete for Military Structures	<u>Other Government Publications:</u>	
TM 5-805-4	Noise and Vibration Control for Mechanical Equipment	HEW Pub U.S. Department of Health, Education, and Welfare (HEW) Minimum #74-4000 Requirements of Construction and Equipment for Hospital and Medical Facilities	
TM 5-805-7	Welding Design Procedures and Inspection	C.7.11.2 <u>Preventive Maintenance:</u> The Contractor shall implement a comprehensive preventive maintenance (PM) program for all buildings and structures to insure that all buildings and structures are maintained by scheduled work. The Contractor shall develop, document, maintain, and shall follow an SOP for preventive maintenance. This SOP shall be developed along the guidelines found in TM 5-610 and shall be submitted to the Contracting Officer for review and approval not later than (specify).	
TM 5-805-8	Builders Hardware	<i><u>NOTE TO WRITER:</u> Maintenance measures must be taken to insure that roofing systems remain effective waterproofing systems. Proper inspections and preventive procedures will reduce problems and will reduce Army's costs by precluding complete repair or replacement of roofs and costly insulation. The following requirement is recommended for use in all contracts which include maintenance of roofs. A comprehensive PM and repair program must be specified by the Government rather than by a Contractor.</i>	
TM 5-805-14	Roofing Design	C.7.11.3 <u>Roofing Systems:</u>	
TM 5-809-1	Load Assumption for Buildings	a. The Contractor shall inspect, maintain, and repair as required, all roofing systems IAW the following schedules:	
TM 5-809-2	Concrete Structural Design for Buildings		
TM 5-809-3	Masonry Structural Design for Buildings		
TM 5-809-4	Steel and Aluminum Structural Design for Buildings		
TM 5-809-5	Wood Structural Design for Buildings		
TM 5-809-6	Structural Design: Structures Other Than Buildings		
TM 5-809-8	Metal Roofing and Siding		
TM 5-809-10	Seismic Design for Buildings		
TM 5-810-1	Mechanical Design: Heating, Ventilating and Air-Conditioning		
TM 5-810-5	Plumbing		
TM 5-810-6	Nonindustrial Gas Piping Systems		
TM 5-810-7	High Pressure Gas and Cryogenic Systems		
TM 5-811-1	Electric Power Supply and Distribution		
TM 5-811-2	Electrical Design, Interior Electrical System		
TM 5-811-3	Electrical Design, Lightning and Static Electricity Protection		

(1) Built-up roofing systems: Twice a year in the spring and in the fall.

(2) All other roofing systems: Once a year during the period April through October.

(3) All roof drainage systems: Checked and cleared of debris at least twice a year during April and November.

(4) Additional inspections shall be accomplished after each major storm and after any construction work or modification that could affect the watertight integrity of the roofing system.

b. The Contractor shall accomplish the following specialized actions:

(1) Accomplish a nondestructive moisture survey of all insulated roofing systems, using an aerial infrared scanner once every three (3) years and after any major storm or any unauthorized modification that could have affected the watertight integrity of the roofing system. Roof top infrared scans or nuclear meter surveys can be used in lieu of the aerial scan. All verified areas of wet insulation shall be plotted on a roof plan and brought to attention of the contracting officer within five (5) working days after the results are received.

(2) Inspect all warranted roofing systems within 90 days prior to the end of the warranty period. All deficiencies will be brought to the attention of the Contracting Officer, in writing, within five (5) working days after the inspection.

c. The Contractor shall insure that the inspection, maintenance, repair, and replacement of roofing systems are accomplished IAW TM 5-617 and AR 420-70. The results of all inspections will be documented on the building roof plan and on the roofing inspection checklist. All maintenance and repairs shall be accomplished to insure that all roofing systems remain a watertight assembly, that water does not enter the interior of the building, and that the water drains freely from the roof surface, if the problem is caused by blocked drainage. All roofing problems exceeding the Contractor's responsibility and cost, including any deficiencies that should be corrected when the building is reroofed, shall be brought to the attention of the Contracting Officer, in writing, not later than the close of business five (5) workdays after the problem is identified. When roofing conditions are noted that will permit water to enter the interior of the building, the Contracting Officer will be notified by telephone or other expeditious means within (specify) (minutes/hours.)

d. All Contractor personnel involved in the manage-

ment; inspection; analysis; and maintenance, repair, and replacement of roofing systems, must possess written certification, acceptable to the Contracting Officer, attesting to their competency of implementing the procedures and guidelines stated in TM 5-617, AR 420-70, and the TRI-SERVICE Roofing Systems Maintenance Management Program "ROOFER", when implemented. Acceptable levels of competence for management, inspection, and engineer personnel will include a formal course of instruction of not less than three (3) days covering their area of responsibility. The acceptable level of competence of personnel involved in the maintenance and repair of roofing deficiencies will include either a written certification that the individual has been employed as a roofing repair person for a period of not less than one (1) year or who will work under the direct supervision of an individual who possesses the written certification.

C.7.11.4 Electrical Work:

a. The Contractor shall provide preventive maintenance and repair of all main disconnect devices, cables, wires, raceways, ducts, capacitors, regulators, grounding equipment, wall switches, conduits, receptacles, fire and smoke alarms, installed lighting fixtures, lamps, and clocks, as well as the parts and accessories necessary to distribute the electricity to the using equipment.

b. Electrical materials and equipment utilized by the Contractor shall comply with existing codes of the National Fire Protection Association, Bureau of Standards, and the American Safety Code listed in (specify). All electrical work shall conform to the requirements of the National Electrical Code (NFPA No. 70-1981). The Contractor shall submit proof that materials which he proposes to furnish conform to the standards of the (list testing organizations). The label of the testing organization(s) shall be accepted as conforming to this requirement. In lieu of the label, the Contractor may submit a written certification from any nationally recognized testing agency, adequately equipped and competent to perform such services, that the items have been tested and conform to the standards, including methods of test, of the above testing organizations. The overall quality of any repair, including all materials, shall comply with applicable Federal specifications and be comparable to the original construction quality for the building or unit and shall be made in such a manner as to assure a safe and reliable electrical system. The Contractor's mechanical and electrical work in buildings and structures shall include:

(1) Install and repair electrical wiring systems and associated switches, distribution panels, light sockets, and outlet boxes.

(2) Measure, cut, thread, bend, assemble, and

install conduits; insert, splice, and connect wires to fixtures, outlets, switches, receptacles, and power sources.

(3) Work from blueprints, wiring diagrams or sketches.

(4) Locate, diagnose, and repair trouble occurring in power circuits, controls, switches, rheostats, thermostats, flow meters, and stop controls.

(5) Test circuits and equipment.

(6) Install, maintain, and repair a wide variety of electrical fixtures, tools, and appliances. (Insert a line for electric shop work for customer appliances - buffers, fans, etc.)

(7) Follow maintenance schedules and instructions in delivery orders, perform inspection, provide maintenance services, diagnose system or equipment malfunctions, and repair.

(8) Change light bulbs, replace fluorescent ballasts, and hang light fixtures limited to areas where fixtures are not readily accessible.

(9) Inspect, test, clean, repair, and adjust electrical buzzer and bell circuits, light sockets, light fixtures, emergency lights and emergency lighting systems, fans, switches, office and heating appliances, clocks, rheostats, thermostats, electrical drills, grinders, and other shop equipment.

(10) Install hospital and dental electrical equipment.

(11) Install, test, maintain, and repair electric motors.

(12) Maintain and repair floor buffing machines; replace gears, bearings, bushings, wheel switches, handles, cords, and plugs. (Add paragraph covering grounding facilities. See AR 422-43 and address all DEH responsibilities such as TV antennas, washers, dryers, traffic signals etc. Insure that only electrical equipment classified as installed building equipment is included. e.g., generators, UPS, etc., with maintenance performed by others.)

(13) Maintain and repair passenger and freight elevators, service hoists, and dumb waiters; make all necessary adjustments to relays, limit switches, speed control circuits, a.c. motors, and d.c. generators.

(14) Maintain and repair automatic fire control (combustion) systems, electronic control systems of clocks, and

bells; maintain range control lines.

(15) Calibrate, align, test for electrical defects, repair and replace parts on electric control equipment which governs operation of gas-and oil-fired heating systems. Such equipment and instruments include: electronic controls and burner control systems consisting of photoelectric scanner and programming controls, orifice meters, flow meters, temperature and pressure recorders indicating pyrometers and accessories, modulating pressure controls, pressure regulators, magnetic starters, pump controls, low water cutoff and alarm systems, and electric radiator valves, etc.

(16) Test equipment using a wide variety of testing devices. (Specify the equipment.)

(17) Maintain and repair electric controls consisting of thermostats, valve operators, damper operators, pressure reducing valves, selector switches, gradual switches, solenoid air valves, duct humidostats, and pressure switches.

(18) Inspect, maintain, and repair hospital's oxygen and steam alarm systems.

(19) Maintain calibration of test equipment IAW industry standards. (Specify the standards.)

(20) Perform the following special equipment activities:

(a) Inspect high and low voltage control of all steam, gas, and hot water boiler controls and regulators, pressure low water cutoff switches, and related safety devices for functioning as designed once a month. (Specify intervals.)

(b) Inspect gasoline refueling pump stations for proper (define proper) grounding of hoses once each month (specify intervals). The Contractor shall maintain a log listing dates of inspections and the measured resistance to ground (in ohms) for each pump.

NOTE TO WRITER: See C.7.6.5 and consolidate the following requirements.

a. Monitor operation of emergency generator units at the hospital in the event of power outage to provide uninterrupted provision of power.

b. Record readings of all electric meters on a regular monthly schedule (specify schedule). The meter readings shall be recorded in meter books provided by the Contracting Officer and turned in to the Contracting Officer (specify) workdays prior to the end of each month. Coordinate with utility company readings as applicable. There is a need to read main meter(s) for

acquisition purposes and where electricity is resold to tenants.

C.7.11.5 Plumbing and Steamfitting Work: The Contractor's plumbing and steamfitting work shall include the preventive maintenance of these systems and the repair or replacement of their associated components. The Contractor shall maintain plumbing and steam systems and their associated components IAW applicable sections of the Uniform Plumbing Code (UPC). The quality of workmanship shall always be equal to, or better than, the minimum specified by the applicable UPC. The Contractor shall obtain approval from the Contracting Officer, in writing, prior to any deviation from the UPC requirements. The codes and standards are listed in (specify). The Contractor shall:

- a. Unstop drain lines when blocked.
- b. Adjust or repair leaky joints, faucets, and other outlets by replacing washers and tightening screws or fittings.
- c. Install and repair domestic hot-water heaters and plumbing fixtures to include commodes, urinals, kitchen and utility sinks, showers, and bathtubs.
- d. Place and connect air, natural or manufactured gas, sewage, water fixtures and facilities such as hydrants, water lines and mains, water closets, lavatories, showers, sinks, dishwashing machines, gas heaters, stoves, and air compressor equipment.
- e. Cut or drill holes and openings in walls and floors, chases, or slots, and set sleeves, thimbles, or inserts to provide passage and supports for pipe and fittings to pass through.
- f. Measure, cut, and thread pipe; assemble pipe sections; hang or lay assemblies in positions.
- g. Lay and join concrete, clay, PVC, or iron pipes.
- h. Maintain and repair interior plumbing waste lines, mixing, ball check, shower, waste, and overflow valves, water coolers, and domestic water heaters.
- i. Replace bolts, pipe hangers, strainers, and drain covers that are damaged or missing.
- j. Reset loose commodes.
- k. Install hospital and dental equipment requiring plumbing.
- l. Inspect and provide preventive maintenance for sluggish drainage in sinks, wash basins, tubs and showers, floor drains, urinals, commodes, and other drains.
- m. Tighten commode mounting bolt and commode seats and adjust flow on flush valves on commodes and urinals.
- n. Inspect piping, fittings, and fixtures for defective parts and make corrections; test connections for leaks.
- o. Clean sand and other debris from sump pump pits.
- p. Perform major (define) repair and overhaul work on pumps (i.e., disassemble pumps, replace worn impellers, shafts, bearings, gland seals, ream bearings for perfect fit; reassemble to specification for necessary clearance). Repair or replace sump pumps (currently there are approximately (specify) installed and operating), connect all interconnecting piping from pumping systems to service lines, replace check valves, gate valves, and pressure gauges. Remove and install entire pumping systems and make modifications to piping systems.
- q. Perform repair and overhaul work on components found in pumps; i.e., boiler feedwater systems, condensate return pump systems, hot-water circulating pumps.
- r. Repair heating systems, boilers, steam distribution and return lines; gasoline storage tanks, pumps, and dispensing systems; natural gas lines; liquid petroleum storage tanks; process boilers and vat coils; chilled waterlines; gas regulators, meters, and valves.
- s. Install, repair, modify, and adjust all types of gas-fired appliances and equipment such as ranges, hot-water heaters, furnaces, and burners in boilers.
- t. Connect steam, gas, and water lines to kitchen and hospital equipment.
- u. Visual inspection of area for gas leaks along mains.
- v. Inspect gas valves, regulators, and gas burning equipment for leaks.
- w. Inspect cathodic protection devices and repair, or replace and clean and lubricate valves of natural gas mains.
- x. Pump water out of gas tanks.
- y. Inspect gas tanks for leaks, keep valves lubricated and vents free of debris. Clean strainers.
- z. Inspect stairs and platforms of above ground tanks and repair or replace broken steps.
- aa. Replace hoses on fuel-dispensing pumps.

bb. Inspect meters on fuel-dispensing pumps for accuracy.

cc. Calibration and maintenance of the natural gas meter(s) located at (specify) on a daily basis. (This is an item the Contractor would probably not do on a daily basis.)

dd. Maintain mixing/temperature control valves for X-ray equipment and film processing equipment to be accomplished on a monthly basis, see (specify).

ee. Maintain steam and oxygen lines in the hospital and the accompanying alarm systems.

ff. The Contractor shall notify the Contracting Officer prior to any steam, heat, or gas outages or curtailments at least (specify) hours before desired outage.

C.7.11.6 Metal Work: The Contractor shall maintain and repair or replace metal components of buildings and structures, installed building equipment, firing range fixtures, and shall construct and install metal components in support of other maintenance activities. Metal work shall include heating and bending to form metal shapes, drilling, torch cutting, hammer forging, grinding, sawing, and fitting of metal parts. The Contractor shall also weld all types of metals using electric, acetylene or inert gas shielded welding processes. Welding will be performed on light, heavy gauge, and hardened metals using flat, vertical, horizontal, and overhead positions. Processes include preheating, brazing, bead welding, tack welding, flame cutting, pressure welding, and heat treating. Metal work includes the full range of metal working and sheet metal activities such as:

a. Inspect and repair coal-fired equipment.

b. Inspect equipment for operation as designed on a scheduled basis during heating season.

c. Repair coal-fired, warm-air furnaces, space heaters, low pressure steam boilers, and hot-water heaters.

d. Report to the Contracting Officer all incidents where coal-fired equipment has been damaged by willful destruction or neglect. Any such incident not reported within (specify) shall be deemed the Contractor's responsibility to repair or replace at the Contractor's expense.

e. Fabricate, install, repair, replace parts or complete assemblies to include; metal components of buildings (except door hardware), metal parts of installed building equipment, utility systems, roadway structures, drainage structures, metal signs, installing anchorages in floors and walks to secure

pilferable items.

f. Fabricate, install, and repair venetian blinds (delete if not applicable).

g. Perform welding shop services on equipment.

h. Maintain sheet metal shop equipment.

i. Maintain breech from boilers to stacks.

j. Assemble and fasten fabricated parts by installing bolts, rivets, screws, or seam, solder, and spot welding.

k. In addition to the above, the Contractor must possess or be able to obtain the skills necessary to perform in the following areas:

(1) Interpret blueprints, drawings, sketches, and work orders.

(2) Use templates or patterns as guides in laying out and cutting materials from a variety of sheet metal stocks.

(3) Form single and double hem edges and seams, dovetail and lock seams, set-in and burred bottom seams, and wired or rolled edges and flanges.

(4) Lay out and cut materials for any combination of square, rectangular, circular, conical, cylindrical, oval, irregular, and transitional shapes, allowing for seams, joints, laps, and shrinkage.

(5) Shear, bend and form metal parts into desired shapes with hand and power tools and equipment.

(6) Determine dimensions by application of basic shop mathematics and use of scribing tools, dividers, rules, and other measuring devices.

(7) Use such equipment as shears, brakes, folders, formers, crimping, burring, and bending machines, and handtools.

(8) Repair, modify or fabricate metal items for all types of equipment, including light or intricately made mechanical parts, which must fit in assemblies where close tolerances are required.

(9) Plan, lay out, position, and clamp work.

(10) Preheat metal and maintain heat to prevent distortion.

(11) Use templates, jigs, blueprints, and other guides to repair, modify, or fabricate metal items for all types of equipment.

C.7.11.7 Painting: The Contractor shall provide cyclical and scheduled painting of quarters, administrative buildings (etc.) (specify). Work will include signs, pictorials, and a variety of surfaces, including interiors and exteriors of buildings or stationary and mobile equipment, where both appearance and surface protection are important. The Contractor shall prepare surfaces, mix paints, and apply prime, intermediate, and finish coats. Painting shall include:

a. Sign Painting: Determine media, methods, plan, design, lay-out, size of letters, pictorials, and other features such as suitable coloring, etc., bond sign faces to sign blanks and paint signs.

b. Design, fabricate, and paint posters, informational signs, directional signs, field training signs, safety signs, and banners.

c. Lay out work in order to produce lettering and art features to scale, print in graduations, numerical designations, explanatory lettering, color coding for safety, and color coding munitions for training.

d. Draw details from rough sketches, drawings, photographs, etc., using chalk and paints.

e. Determine type of paint best suited for the job, mix colors for consistency needed to do the work, perform freehand and gold-leaf lettering, and silk screening of signs.

f. Work on a variety of surfaces such as metals, wood, and masonite.

g. Repaint and touch up signs in place on buildings, structures, appurtenances, and along streets.

h. Fabricate or paint traffic control signs in conformance with the Manual of Uniform Traffic Control Devices (specify date) published by the American Association of State Highway and Transportation Officials.

i. Paint interior and exterior walls, windows and door units, towers, guy wires, guards, reflectors, kitchen cabinets, and other stationary or mobile equipment.

j. Paint all repairs. Paint used for touchup and repairs shall blend with the color and texture of surrounding areas. The color of paint for entire walls or rooms shall be selected by the

Contracting Officer from samples furnished by the Contractor.

k. Tape, spackle, and repair gypsum board surfaces.

l. Strip, sand, and refinish wood floors of various types.

m. Move, reset, and protect furniture and equipment and protect all Government and privately owned property during the work performance.

n. Strip, sand, and refinish to preserve esthetics of items that cannot be replaced by items of equal quality.

o. Contractor-furnished paint shall not contain harmful levels (define levels) of lead. (Specify no lead in housing. See TM 5-618 to develop this requirement. Indicate any reports/records on painting that the Contractor will be responsible for.)

C.7.11.8 Keys and Locks: The Contractor shall provide installation, maintenance, repair, and adjustment of locks, latches, panic devices, door closures and strikes of different makes, sizes, and shapes. These may be installed in buildings or building components. The Contractor's work shall include setting and changing lock combination, recovering locks, making keys (upon approval of Contracting Officer) and fabricating minor parts from raw stock. The Contractor shall maintain records of each building including core number and key number, when core was last changed, the number of keys for each core, and who signed for them. (Insert any requirements for master key plan, positive key control, responsibility for misuse of GF, master and key combinations.)

C.7.11.9 Carpentry and Masonry:

a. Carpentry: The Contractor shall provide all carpentry work to maintain all buildings, structures, or facilities. The Contractor shall use TM 5- 551-B as guidance. The Contractor's work shall be planned and accomplished to offer maximum resistance to fungus, mildew, termites, water absorption, and all other harmful effects caused by the environment. All wood provided and installed by the Contractor in contact with concrete and masonry shall be preserved and treated by pressure methods and marked IAW the American Wood Preservers Institute Standards. Wood treated with waterborne preservatives shall be air and kiln dried to the moisture content specified for lumber and marked with the word "dry." Treated wood shall be used in all exposed locations that lack protection from the weather. If a cut is made in treated wood, the cut shall be brush coated with a wood preservative. All carpentry work performed shall be consistent with the construction and appearance of the existing facility or structure. Carpentry work

shall include all work to maintain all facilities or structure such as structural framing; fabricating steps, ramps, approaches, footings, docks, etc.; structural sidings to include wood, asbestos, etc.; stairs and floor coverings, broken steps, chipped tile, inlay units and damaged underlayment; maintaining and repairing carpets, windows, interior and exterior screens, caulking, weatherstripping, and glazing; installing window shades, maintaining and repairing doors, door frames, sills, trim, and casings; repairing or replacing broken doors, lock sets, hardware, fillings, kitchen cabinets, bathroom vanities, built-in shelving, medicine cabinets, and similar items.

tractor's responsibilities when this work is outside the capability of the engineer troop unit.

b. Masonry: The Contractor shall provide all masonry work to maintain all facilities or structures. The Contractor shall utilize TM 5-742 as a guideline. Masonry work shall include all work to maintain and repair all facilities or structures. All work shall be consistent with the construction and appearance of existing facilities or structures. Masonry work shall include all facilities or structures work such as maintenance and repair or replacement of foundations, walls, floor slabs, diversion of water from exterior walls, extending downspouts, chimneys, deteriorated brick, tuck pointing, removal of soot, ash, and similar items.

C.7.11.10 Troop Support: The Contractor shall provide all work and services to support troop unit construction projects. Attachment (specify) provides details as to previous troop construction support and known or projected troop construction projects. The Contractor's work shall include estimating quantities of necessary supplies or material, purchasing, issuing, coordinating delivery/pickup schedules, storing supplies or materials, providing all necessary engineering technical support, and providing any tools or equipment necessary to supplement the troop unit's own inventory to complete the project.

NOTE TO WRITER: *At many installations a substantial portion of the RPMA program is accomplished through troop support from engineer units. Contract specifications (performance work statements) must reflect consideration of this RPMA resource and this requirement must be included in planning for the cost study. The DEH provides support to troop units for troop construction projects such as supply support. Guidelines for the troop construction program function are:*

a. *Overall management to include programming, planning, prioritizing, coordinating, and controlling the troop construction program should remain an in-house, Government function.*

b. *Preparation of designs, bills of materials, estimates, and other associated project documentation should be the Con-*

c. Provision of supplies and control and accounting for supplies should be the Contractor's responsibility.

d. Provision of supplemental equipment, supplemental skilled labor, supplemental technical guidance, etc., should be the Contractor's responsibility.

e. Quality control for troop construction projects/programs should be an in-house, Government function.

f. Accounting for and control of costs to adhere to regulatory or statutory cost limits should be an in-house, Government responsibility.

C.7.12 GROUPS MAINTENANCE, IMPROVED AND UNIMPROVED:

C.7.12.1 Scope: the Contractor shall inspect, service, maintain, and landscape all grounds. Work shall include inspection, scheduling, and performance of mowing and trimming, turf replacement, clearing storm damage (snow and ice removal), leaf removal, correction of soil erosion areas or problems, tree and shrub maintenance, irrigation, fertilization, natural resource conservation, golf course maintenance, policing of areas, tree and stump removal, maintenance of cemeteries, herbiciding for pest (weed) control, etc. The Contractor shall provide all work necessary to maintain all grounds to acceptable standards. (Specify standards. Acceptable standards should be equal to or slightly exceeding that of the local communities.)

NOTE TO WRITER: The following definitions apply to grounds maintenance, improved and unimproved operations. Consolidate in C.2. A broad category of grounds, to include improved, semi-improved, unimproved, etc., which keeps grounds definitions together, is recommended.

a. Improved Grounds: Grounds on which intensive development and maintenance measures are performed. This category applies to areas within the built-up section of an installation which contains lawns, landscaping, parade grounds, athletic facilities, and similar areas.

b. Irrigation Cycle: The application of (specify) inches of water per acre within each seven (7) day period during the growing season from (specify) to (specify). The amount of irrigation water applied shall be correlated with weekly rainfall and adjusted accordingly.

c. Munitions Area: Those designated areas where munitions or explosives are stored.

d. Nursery Stock: Plant materials such as trees, vines, shrubs, and hedges, which are obtained from a local nursery and are suitable for transplanting.

e. POL Facilities: Grounds adjacent to structures or tanks that store or dispense petroleum, oils, and lubricants.

f. Policing Grounds: The pickup and disposal of paper, bottles, cans, cardboard, plastic, rags, and other litter on grounds and other areas as specified. (Specify "other" areas.)

g. Semi-Improved Grounds: Grounds that require scheduled maintenance of a lesser degree than improved grounds. This category includes airfields, rifle ranges, road sides, picnic areas, antenna farms, and ammunition storage areas (include other local areas if needed).

h. Unimproved Grounds: Grounds not included in the above categories. This classification includes military training (other than improved) ranges, timber and forest lands, agricultural and grazing lands, lakes, ponds, swamps, areas on airfields beyond safety zones, and other area requiring limited or no maintenance (installation must be specific). (The contract may not include all areas mentioned herein.)

NOTE TO WRITER: The following documents apply to grounds maintenance services. Consolidate as applicable, dependent upon activity or service to be contracted.

<u>No.</u>	<u>Title</u>
DOD 4170-7	Natural Resources - Forest Management
DA Pam 420-7	Natural Resources, Land, Forest, and Wildlife Management

Army Technical Manuals:

TM 5-630	Natural Resources - Land Management
TM 5-631	Natural Resources, Forest Management
TM 5-632	Military Entomology Operational Handbook
TM 5-633	Natural Resources, Fish and Wildlife Management

Commercial:

ANZI-Z60.1 American Standard for Nursery Stock. Available from: American Association of Nurserymen, Inc., 230 Southern Bldg., Washington, DC 20005

National Arborist Association Standards for Pruning and Maintaining Shade Trees. Available from: National Arborist Association, 3537 Stratford Road, Wantagh, NY 11793 Telephone 513-221-3082

C.7.12.2 Grass Cutting and Trimming: The following tasks and services shall be provided by the Contractor. The Contractor shall do all work necessary to maintain all grounds to specified conditions and standards. The work, standards, and procedures for performance shall be IAW the installation natural resources management plan. The Contractor's work shall include the following:

***NOTE TO WRITER:** The installation must select appropriate tasks. Any use or pesticides must follow contractual procedures outlined in AR 420-76. It may be better to specify frequency of cutting rather than by heights.*

a. **Improved Grounds:** Grass cutting shall be scheduled and performed on (specify) acres as indicated in attachment (specify). Grass shall not be allowed to exceed a height of (specify) inches, excluding seed heads. Mowers shall be set to cut grass to a height of not more than (specify) inches. The grass shall be cut to a uniform height. The Contractor shall maintain mowing blades in a sharp condition and provide a clean, even cut, and prevent scalping, uneven mowing, rutting by equipment, and damage to trees and shrubs. Mowing operations are estimated to be required (specify) times during the months of (specify) to (specify). (It may be appropriate to have several levels of maintenance within a specific ground's classification. These should be indicated in attachments and within the written guidance.)

b. **Semi-Improved Grounds:** Grass cutting shall be scheduled and performed on (specify) acres as indicated in attachment (specify). Grass shall not be allowed to exceed a height of (specify) inches. Mowers shall be set to cut a height of not less than (specify) inches. Mowing operations are estimated to be required (specify) times during the months of (specify) to (specify).

c. **Unimproved Grounds:** Grass cutting for fire control or controlling the growth of undesirable vegetation shall be scheduled and performed on (specify) acres. The areas are indicated in attachment _____. When the grass reaches a height of (specify) inches, the Contractor shall mow to a height of not more than (specify) inches. These mowing operations are estimated to be required (specify times) during the month of (specify) to (specify).

d. **POL Stations and Fuel Storage Facilities:** Grass areas adjacent to fuel handling facilities, as shown in attachment (specify) shall be cut to (specify) inches within a 50-foot perimeter of the paved/gravel blanket surrounding the facilities when the grass reaches a height of (specify) inches. These mowing operations are estimated to be required (specify) times during the months of (specify) to (specify).

e. **Athletic and Outdoor Recreational Areas:** The grass shall be cut to a height of (specify) inches when the grass reaches a height of (specify) inches, on (specify) acres of recreational areas, as shown in attachment (specify). Mowers shall be set to cut a height of not more than (specify) inches. These mowing operations are estimated to be required (specify) times during the months of (specify) to (specify).

f. **Drainage Ditches:** Vegetation on and adjacent to (specify) acres of drainage ditches will be cut (specify) times during the months of (specify) to (specify). Areas to be mowed are shown in attachment (specify). The Contractor shall schedule and perform the cuttings at (specify) intervals.

***NOTE TO WRITER:** Alternative is to specify maximum height of vegetation. In some areas, it may be appropriate to use herbicides as an alternate to mowing.*

g. **Edging:** Sidewalks, driveways, and curbs located in administrative and other (specify other) highly visible areas shall be edged after every (specify) mowing operation. The work involves (specify) linear feet of sidewalks, driveways, and curbs as indicated in attachment (specify).

h. **Trimming:** The grass shall be trimmed around trees, shrubs, fences, poles, buildings, structures, and parking lot bumper blocks so that grass height does not exceed 1.5 times the maximum height of the adjacent grass. Plants girdled more than 50 percent by the Contractor shall be replaced by the Contractor with plants of like value and growth at the Contractor's expense. This operation involves (specify) (square feet) (acres) (etc.) of improved grounds, attachment (specify). This work is estimated to be required (specify) times during the months of (specify) to (specify).

C.7.12.3 Turf Repair and Reestablishment: Areas damaged by

vehicular traffic, utility system repair, building repair or demolition, pollution spills, removal of trees, stumps, natural disaster, or normal wear and tear shall be filled in, leveled, seeded or sodded, and maintained to conform to adjacent turf areas. Undesirable (define) material shall be removed before filling. (Installations will insert local requirements based on past needs. Estimate in 1,000 square feet per year. Guidelines are contained in the natural resources management plan.)

C.7.12.4 Storm Damage: Fallen trees, limbs, debris, and silt deposited by water runoff on improved grounds shall be removed from the installation by the Contractor. (Specify disposal site on installation, estimate times of occurrence, etc.)

NOTE TO WRITER: Installations will insert local requirements based on historical records. Estimate by cubic yards per year. Insert time requirements for removal and disposal of debris. Surveillance of grass cutting, trimming, and edging, and tree pruning may be suspended for a period designated by the Contracting Officer for storm damage cleanup.

C.7.12.5 Soil Erosion: The Contractor shall control soil erosion. Those areas subject to erosion shall be restabilized with an (specify type) ground cover (installations will insert local requirements). (Estimate by 1,000 square feet per year; consult the natural resources management plan for guidance.)

C.7.12.6 Leaf Removal: During the period (specify dates), fallen leaves shall be removed from those areas indicated in attachment (specify). (The frequency of removal to be determined locally.) The Contractor will dispose of the debris (in the area outlined in attachment (specify) (off the installation, etc.).

C.7.12.7 Irrigation: The Contractor shall perform metered irrigation on (specify) acres of improved grounds as shown in attachment (specify) during the months of (specify) to (specify). Beginning (specify dates), the Contractor shall irrigate during the growing season. (Specify who will provide and install meters. Meters can be both installed and portable systems. Consult the natural resources management plan for guidance on inches of water to apply. Correlate this requirement with rainfall.)

a. Irrigation water shall be applied to turf areas in a uniform manner. Precautions shall be taken by the Contractor to prevent runoff into streets, drainage ditches, and accumulation in low areas.

b. Trees and shrubs located outside the irrigated areas as shown in attachment (specify) shall be irrigated (specify)

times per month with a minimum of (specify) inches of water applied uniformly within drip line of the tree (correlate with rainfall).

c. The Contractor shall provide and maintain the sprinkler heads and risers; work shall include maintenance of supply line on installed underground systems. The number of sprinklers to be maintained is (specify).

C.7.12.8 Tree and Shrub Maintenance:

a. The Contractor shall provide all work necessary to maintain trees, shrubs, hedges, vines, and ground covers. Landscape planting requiring maintenance is indicated by areas as shown in attachment (specify). There are approximately (specify) trees, (specify) shrubs, (specify) linear feet of hedges, and (specify) square feet of ground covers requiring maintenance.

b. Pruning shall be performed by the Contractor IAW the National Arborist Association Standards for pruning, guying, and fertilizing shade trees. (Specify latest version or update.)

c. Trees shall be pruned/trimmed on a three (3)-year cycle, one-third of the total each contract year. Trees to be pruned are identified in attachment (specify). (Pruning/trimming or trees to be replaced shall comply with the installation land management and landscaping plan.)

NOTE TO WRITER: Installation will specify degree of pruning to be accomplished (removal, thinning, maintenance). Also, identify increased frequency of pruning for certain trees as required.

d. Shrubs shall be pruned to maintain their natural growth characteristics. Shrubs to be pruned are identified in attachment (specify). (Specify the natural growth characteristics.)

e. Hedges shall be maintained in existing shape. No informal hedges or screen planting shall be converted to formal shapes.

f. The Contractor shall replace trees and shrubs that are lost by disease, winterkill, drought, damage, or acts of God (installations will furnish requirements: estimate number, size, and species of plant materials necessary for replacement.) (Trees and shrubs should be replaced at appropriate time of the year.)

g. Replacement plant materials and plantings provided by the Contractor shall conform to industry standards as outlined in American Standards for Nursery Stock, ANZI Z60.1. (Specify latest version.)

C.7.12.9 Fertilization:

a. The Contractor shall apply a commercial type of fertilizer on (specify) acres of improved grounds. The areas to be fertilized are shown in attachment (specify).

b. The Contractor shall apply (specify) pounds of nitrogen, expressed as total nitrogen, (specify) pounds of phosphorous, expressed as P_2O_5 , and (specify) pounds of potassium, expressed as K_2O , plus (specify) pounds of lime per acre in (specify) applications each year during the maintenance season. Application rates and areas requiring fertilization and lime are shown in attachment (specify).

***NOTE TO WRITER:** The rate of application of fertilizer and lime must be determined by installation based on soil test analysis. Specify type of fertilizer; i.e., 5-5-10, 10-10-10, etc. Consult the installation natural resources management plan for guidance. Rate of nitrogen (N) must be determined by the installation for all areas receiving fertilizer treatment. Rates of N are dependent upon use and intensity of use. Golf course fairways, open areas, lawns, road shoulders, athletic fields, etc., require different rates of application. Lime is normally applied every three (3) to five (5) years depending upon soil test.*

c. Representative soil samples shall be taken by the Contractor from improved grounds and submitted to (a) (the) (etc.) (specify) local testing laboratory for analysis of phosphorous, potassium, and micronutrients. (Installation will show in attachment the areas to be sampled. Specify who will bear costs of sampling, copy to the Government, etc.)

C.7.2.10 Outdoor Recreation Areas: The Contractor shall maintain (specify) acres of picnic grounds, physical fitness trails, campgrounds, and other outdoor recreation areas. The turf area

of picnic grounds and campground facilities shall be maintained as semi-improved grounds, paragraph (specify) during the period (specify dates). Trash and debris shall be picked up and removed (specify) times per week. Outdoor recreation areas are shown in attachment (specify).

C.7.12.11 Snow Removal: The Contractor shall remove snow from (specify) linear feet of sidewalks located adjacent to administrative buildings as shown in attachment (specify). (Installations with snow removal requirements will indicate their workload and provide data based on historical experience. Installation should include number of hours from end of snowfall for snow removal and establish snow removal priorities IAW with installation snow removal plan. Additional areas for snow removal should be listed. See C.7.13.12 and consolidate requirements with pavement maintenance, surfaced areas.)

***NOTE TO WRITER:** The natural resources area can be expanded significantly depending on installation functions. Development and maintenance of the natural resources management plan is an inherent Government responsibility and must be performed by professionals on the residual staff. The installation must determine those portions to be implemented by any successful contractor and define the requirements for herbicides, weed control, insect control (moles), disease control (fungicides on grass), trees, and shrub application of insecticide or fungicide (Ref: C.7.3 comments). Disease organisms, etc., will be based upon past experience.*

a. Fish and wildlife management.

- (1) Manning check stations.
- (2) Planting and maintenance of habitat.
- (3) Hunting/fishing permits.

b. Forest management.

- (1) Timber stand improvement.
- (2) Tree planting.
- (3) Forest firefighting.
- (4) Firebreak maintenance.
- (5) Woodcutting permits.
- (6) Timber marking and inventory.

c. Natural resources.

d. Lake and river protection and maintenance.

The natural resources management plan should be included as an exhibit if extensive responsibilities are to be a part of any contract.

C.7.12.12 Natural Resources Conservation: The Contractor shall provide support for the forestry, fish, and wildlife programs. The Contractor shall perform work IAW the natural resources management plan for those functions specified in the contract.

C.7.12.13 Fish and Wildlife Management: (Installation will define type of work and indicate estimated man-hours per season.)

C.7.12.14 Stocking Lakes and Streams: The Contractor shall furnish labor and equipment for stocking lakes and streams (installation will indicate their requirement. Specify who will provide fish stock, etc.)

C.7.12.15 Commercial Forest Lands: The Contractor shall maintain (specify) acres of commercial forest lands as shown in attachment (specify). (Installations will define total requirements to include any fire prevention requirements.)

C.7.12.16 Golf Course Maintenance: The Contractor shall maintain the roughs and fairways of the installation golf course(s) and driving ranges, consisting of (specify) acres of fairways and (specify) acres of rough as shown in attachment (specify). (Estimate or provide specific mowing requirements.) The conditions set forth below apply:

a. Fairways: Mowing grass shall be accomplished on (specify) acres as indicated in attachment (specify). Grass will not be allowed to exceed a height of (specify) inch. Mowers will be set to cut grass to a height of (specify) inch. Only reel type mowers shall be used to cut fairways.

b. Roughs: Grass cutting shall be provided as specified below. Mowing shall be performed on (specify) acres as shown in attachment (specify).

c. Interruption of play must be kept to a minimum. The golfer has the right of way. Special events as estimated at (specify) shall be accomplished at the request of the Contracting Officer.

d. No mowing shall be performed through standing water, frost, or other conditions deemed detrimental to turf by the Contracting Officer. Before mowing begins, surfaces must be free of all debris such as stones and branches. Precautions shall be taken to prevent scalping, uneven mowing, rutting by equipment, and damage to trees, shrubs, and sprinkler heads. The contractor shall repair damaged turf and replace shrubs,

trees, and sprinkler heads damaged during mowing operations.

e. Driving Range: The driving range shall be maintained so that the grass height does not exceed (specify) inches. Mowers shall be set to cut grass at a height of (specify) inches. Coordination of mowing time with the clubhouse staff is necessary to ensure driving range is "picked free" of golf balls.

f. Roughs: All rough areas shall be maintained so that the grass height does not exceed (specify) inches. Mowers shall be set to cut grass at a height of (specify) inches.

g. Other Areas: All other common areas identified in attachment (specify) are part of the golf course grounds and shall be maintained so the grass height does not exceed (specify) inches. Mowers shall be set to cut grass at a height of (specify) inches. Examples of these areas are: (1) around trees; (2) clubhouse lawn and adjacent area; (3) around all water hazards to water's edge; (4) around all structures; (5) along all road right-of-ways.

h. Irrigate: Irrigation water shall be applied to the areas in a uniform manner. The water deficiency table is provided as a guideline for inches of water applied during the annual growing season. Hand watering may have to be done any time during the growing season for watering isolated dry spots, watering excessive fertilizer, or pesticide spills or hydraulic fluid spills. No watering which produces standing water, soggy turf or runoff shall be allowed.

(1) Fairways: Watering requirements for the fairways shall vary throughout the growing season. Water must be applied to keep fairways firm and healthy.

(2) Roughs/Driving Ranges/Other Areas: If areas have a sprinkler system, the Contractor shall apply water to these areas to maintain them in a firm and healthy condition.

i. Irrigation Systems: Operate and maintain the sprinkler system. Maintenance includes de-winterizing and winterizing irrigation systems to prevent freeze-ups. Replacement of sprinkler heads shall be done by the Contractor.

j. Apply Fertilizer/Soil Amendments: Amounts and types of fertilizers and soil amendments shall be determined by the results of a soil analysis. The Contractor shall obtain soil analysis results prior to the start of the growing season and provide fertilizer plan to the Contracting Officer for approval. Fertilizers shall normally be watered within 12 hours after application of one (1) hour, if a turf stress reaction is indicated. Fertilizer and soil amendments shall be evenly applied to the

areas.

(1) Fairways/Driving Ranges: All fairways and driving ranges shall be fertilized three (3) times annually on (specify) with 1½ pounds actual ingredient nitrogen per 1,000 sq. ft. (K₂O and P₂O₅) in accordance with soil analysis recommendations).

(2) Roughs/Other Areas: All roughs and other areas shall be fertilized once annually on (specify), with (specify) pounds actual active nitrogen, (specify) pounds phosphorous (P₂O₅), and (specify) pounds potassium (K₂) per 1,000 sq. ft.

(3) Fairways: All fairways areas shall be verticut biannually on (specify). (DELETE THIS PARAGRAPH IF NOT APPLICABLE.)

k. Aerate:

(1) Fairways/Driving Ranges: All fairways and driving ranges shall be aerified once a year on (specify). Aerification of fairways/driving ranges consists of taking plugs 3/4 inch in diameter by 2-3 inches deep on 6-8 inch centers across the complete area. Aerifying plugs shall be dragged to break up the dirt portion, back into the thatch layer. This is done before quitting time so as not to leave any fairway or driving range unplayable.

(2) Fairways: All fairway areas shall be rolled annually after winter thaw. (DELETE THIS PARAGRAPH IS NOT APPLICABLE.)

(3) Roughs: All heaving of turf due to frost shall be rolled in all roughs in early spring. Rolling equipment and weight shall be the same as for fairways. (DELETE THIS PARAGRAPH IS NOT APPLICABLE.)

l. Repair Damaged Areas:

(1) Fairways: Repairs shall be made with seed, sprigs, sod, or plugs or turf grass of the existing species and variety.

(2) Weeding: The Contractor shall eliminate weeds on all fairways and roughs. All weeds shall be removed or eradicated manually, mechanically or with appropriate herbicides/pesticides. Consult paragraph on pest management.

(3) Remove Debris: Debris removal must be made to ensure specified playing conditions. Fairways, water hazards, and sand traps must not be overlooked. All debris must be disposed of IAW (specify).

(4) Leaves: During the period (specify month) to (specify month), fallen leaves shall be removed from the golf course (specify) times per week. (THE FREQUENCY OF REMOVAL IS TO BE DETERMINED LOCALLY BUT SHALL NOT BE MORE THAN (SPECIFY) PER WEEK.) (LOCAL INSTALLATIONS ALSO NEED TO SPECIFY DATES DURING SPRING FOR REMOVAL OF LIVE OAK LEAVES.)

(5) Tree Limbs/Other Debris: Tree limbs and other debris, which present obstacles to Ground Maintenance operations shall be removed within one day of identification.

(6) Mark Course: Mark the golf course and all hazard markers and markers identifying areas under repair during golfing season. Only approved marking paint shall be used as determined by the Government.

(7) Repaired Areas: If an area under repair is in a golf-play area where foot or cart traffic could be damaging to the turf, roping must be erected around the repair area on stakes no higher than three (3) feet. Roping may also have to be erected for people control.

m. Maintain Trees and Shrubs:

(1) Planting Program: Plant new and replacement tree and shrub the plantings on the golf course as identified in attachment (specify). The Contractor shall replace all dead trees as soon as possible with nursery grown trees of the same species no less than 2½ inch caliper. The Contractor shall replace all dead shrubs as soon as possible with the same variety and similar size.

(2) Trim and Prune: Annually trim and prune all trees and shrubs on the golf course. All trees shall be kept pruned of all branches interfering with play and pruned so that power mowing equipment can easily circle the tree without causing tree or mower damage.

(3) Stump Removal: Remove all stumps on the golf course. Stumps shall be ground out six (6) inches below soil surface as soon as possible. The debris shall be disposed of IAW (specify), the remaining hole shall be filled in with topsoil and seeded.

(4) Irrigate: All new trees shall be kept watered by the Contractor. New trees must receive a minimum of (specify) gal of water at planting time and (specify) gal of water per week during dry spells. The Contractor shall prevent transplanting shock and wilt during the tree's first relocated growing season.

(5) Apply Fertilizer/Soil Amendments: Fertilize trees/shrubs indicated in attachment (specify).

n. Maintain Sand Traps:

o. Maintain Water Hazard:

(1) Mow Grass: Height of grass around water hazard shall not exceed (specify) inches. (NOTE: LOCAL INSTALLATIONS NEED TO INSERT GRASS HEIGHT. HEIGHT SHOULD BE THE SAME AS FOR OTHER AREAS)

(2) Trim Grass: Those areas inaccessible to mowers need to be trimmed. Height of grass shall not exceed (specify) inches.

(3) Remove Debris: Water hazards shall be kept free of all debris to include trash. All debris shall be disposed of within one (1) workday of discovery.

(4) Chemical Treatment: Aquatic weed control will be accomplished as specified in attachment (specify). (Consult section on pest management.)

p. Maintain Golf Course Equipment: (NOTE: INCLUDE THIS PARAGRAPH ONLY IF THIS IS A SEPARATE BID ITEM).

q. Perform Maintenance:

(1) Prepare a preventive maintenance (PM) schedule identifying each piece of equipment requiring PM and PM actions required. The maximum actions and frequencies allowed are those prescribed in the manufacturer's specifications.

(2) Perform maintenance according to the schedule on all small engines and attachments and document PM action.

r. Repair Small Engines and Attachments: Repair all golf course small engines and attachments on an as-required basis and document repair action. Repaired equipment must meet manufacturer's safety requirements and perform job intended.

s. Perform Corrosion Control on Identified Equipment:

(1) Prepare a corrosion control PM schedule identifying equipment items requiring corrosion control and actions required. Corrosion control must be accomplished on each equipment item at least once every three years.

(2) Perform corrosion control according to the schedule on identified equipment and document PM action.

t. Perform Pest Control Identification: During normal performance of Grounds Maintenance duties or upon request, identify pest by inspection and report pest problem to the COR.

C.7.12.17 Special Events (installation will define): The Contractor shall provide an estimated (specify) hours of labor and equipment for special events, policing grounds, removal of trash and litter, and forest and range firefighting. (Installation will identify estimated requirements based on historical data.)

C.7.12.18 Policing Grounds: The Contractor shall pick up and dispose of trash and litter on (specify) acres of improved grounds and (specify) acres of semi-improved grounds at frequent of (specify) times per month (see C.7.2.2.14 and consolidate requirements). Trash and litter includes paper, plastic, bottles, cans, cardboard, rags, and other foreign material. The areas to be policed are shown in attachment (specify).

C.7.12.19 Grass Cutting, Family Housing Areas: The Contractor shall mow the grass and police around (specify) units of family housing quarters. The average size of a family housing area yard is (specify) square feet. Mowing will be accomplished as per paragraph (specify), improved

grounds. Installation family housing areas are identified in attachment (specify). (Delete if quarters mowing is accomplished by residents or by separate contract. Revise if unoccupied quarters only will be mowed by the Contractor.)

C.7.12.20 Leaf Collection, Family Housing Areas: During the period (specify) through (specify dates), the Contractor shall remove leaves and small organic debris piled along the curbs, gutters, and drainage ditches in the family housing areas identified in attachment (specify). The Contractor shall dispose of the leaves and debris in the area outlined in attachment (specify). (The frequency of removal will be determined locally. Delete if family housing maintenance is covered under separate contract.)

C.7.12.21 Tree and Stump Removal: The Contractor shall remove an estimated (specify) trees with an average breast height diameter of (specify) inches. Limbs less than 4 inches in diameter will be chipped to form mulch-size material. Limbs and trunks greater than four (4) inches in diameter will have smaller limbs removed and then cut into 10-foot, or less, sections. Stumps will be removed to a depth of eight (8) inches below-ground level, the hole shall be filled with soil, and the area overseeded. The Contractor will dispose of the material in the area shown in attachment (specify) (off installation). (Wood should be used in the firewood program. Chipped material may be used as mulch. Establish grade line, etc., after settling, sales, etc., IAW with natural resources management plan, etc.).

C.7.12.22 Post Cemeteries: The Contractor shall maintain (specify) post cemeteries as shown in attachment (specify). Cemeteries shall be maintained as improved grounds. As required, graves shall be dug, opened, and closed; temporary headboards placed; and permanent headstones set. An estimated (specify) graves are dug, opened, and closed each year (indicate the lesser maintenance services for inactive, isolated cemeteries).

C.7.12.23 Perimeter Fencing: The Contractor shall maintain and repair (specify) miles of perimeter fencing as shown in attachment (specify). The Contractor shall inspect the fencing each (specify) and make any necessary repairs. Upon completion of work, all posts shall be set straight and set tight, and wire shall be stretched tight with no sags or holes and all damages repaired, etc. In addition, once each (specify), the Contractor shall police the fence perimeter for a distance of (specify) feet on both inner and outer perimeters to remove all trash, garbage, debris, litter, etc. (indicate any weed control along fence). ***NOTE TO WRITER:*** *The Government must furnish maps/drawings which show locations and acreage of grounds to be maintained by the Contractor. The maps/drawings should be color-coded or hatched and indicate the classification of grounds and locations of landscape plantings*

to be maintained. Indicate on the drawings any outleased grounds. The installation natural resources management plan should be provided or made available for review (or the applicable portions). Herbicides must be used IAW the DOD Pest Management Board PWS. The Contracting Officers Representative (COR) for golf course maintenance should be the golf facility manager or course superintendent. This will facilitate work and promote better maintenance. No reference should be made for work on greens, sand bunkers, or teeing areas. Appropriated fund support for those areas are prohibited. These may be included if paid by nonappropriated funds.

C.7.13 MAINTENANCE, REPAIR, AND MINOR CONSTRUCTION, SURFACED AREAS:

C.7.13.1 Scope: The Contractor shall inspect, schedule, and perform maintenance, repair, and perform minor construction of all surfaced areas to include paved and unpaved roads, streets, parking lots, sidewalks, recreational areas, erosion control, drainage systems and related areas, and associated structures and appurtenances. The Contractor shall maintain and repair all areas and facilities as shown in attachment (specify). There are approximately (specify) square yards of paved areas, (specify) square yards of unpaved roads, (specify) square yards of airfield pavement, (specify) linear feet of storm drainage and associated structures and appurtenances such as bridges, trestles, tunnels, culverts, sidewalks, curbs, gutters, headwalls, traffic signs and devices, etc. (specify).

NOTE TO WRITER: *The following definitions apply to maintenance and repair of surfaced areas. Consolidate in paragraph C.2. with other definitions. Change as necessary to make complete as a single definition (e.g., maintenance, construction, repair, etc.).*

a. **Appurtenances:** *Appurtenances include all features associated with pavement, such as ditches, culverts, and storm sewers; traffic signs, signals, markings; right-of-way devices; shoulders; curbs; guardrails and snow fencing; cattle guards; tank crossings; and supporting embankments. Appurtenances for airfields, in addition to items listed above, include overrun areas, aircraft arresting gear, and tiedowns.*

b. Associated Structures: Associated structures are all major items included in a road net or other system which are considered to be of greater engineering significance than an appurtenance. Associated structures include such items as trestles, bridges, and tunnels.

c. Construction: Surfaced area construction relates to the alteration, extension, replacement, or upgrading of an existing, single real property facility. Construction work includes that which increases base data by widening or lengthening a surfaced pavement to support a new mission, replacement of an entire facility, and installation of additional appurtenances and associated structures (e.g., bridges, drainage structures, curbs, and gutters).

d. Maintenance: Maintenance of roads, airfields, and other surfaced areas primarily encompasses day-to-day routine work. It includes such functions as blading or dragging stabilized surfaces; cleaning ditches; patching; sealing existing paved surfaces; sealing joints and cracks; slab jacking; snow removal; snow fence erection and removal; vegetation control near pavements; erosion control; maintenance of bridges, trestles, retaining walls, culverts, inlets, and manholes; and replacing or repainting pavement markings and traffic control signs and signals. Examples of other applicable work are:

(1) Application of a dust palliative (i.e., a chemical, dilute asphalt emulsion, or single surface treatment) both to the traffic way and the road shoulder, provided only when minimal surface preparation is needed.

(2) Application of a sealer coat or surface treatment to existing asphaltic concrete surface.

(3) Scarifying a stabilized area, adding new material, reshaping, and compacting.

e. Parking and Open Storage Areas: An area planned and designed for storing, servicing, and parking of organizational vehicles; or for parking of vehicles belonging to visitors, civilian employees, and staff personnel; or for receiving, classifying, and storing of supplies, new and salvaged materials, and equipment pending assignment for use or distribution; or for salvaging, processing, or repairing equipment.

f. Repair: The repair and restoration of a failed or failing section of roads, airfields, and other surfaced areas to such a condition that the section may be utilized for its designated purpose. Each undertaking must involve repairs of a finite scope. Typical repair processes include overhaul, reprocessing, or replacement. Normal repair work pertaining

to surfaced areas includes such general items as: partial replacement of a single real property facility (one single unit), provided the capacity is not increased over that allowed for repair work or the surface area is not increased; replacement of failed storm and subsurface drainage systems, including drainage channels; replacement of failed curbs and combination curbs and gutters; repair or restoration of a bridge within established limitations, provided that it is in the same location as the initial structure and the surface area is the same as or less than that of the original structure; replacement of stabilized surfaces, surfaced area appurtenances, guardrails, traffic control devices, individual concrete slabs, and materials to prevent slope erosion; placement of a surface treatment on an unsurfaced area or shoulder; and limited placement of an overlay with a nominal thickness of three-fourths of an inch or less on an existing surface treatment.

g. Spot Repair: The repair or replacement of failed or deteriorated separate areas of asphalt or concrete slabs by removing and replacing portions of the pavement surface, base, subbase, and appurtenances.

h. Stabilized Areas: Areas which have been improved from their natural condition by mechanical compaction, with or without the addition of stabilizing agents.

i. Surfaced Areas: The term surfaced areas covers all graded, paved, or stabilized (other than grass) areas used for vehicular, aircraft, track vehicle, or pedestrian traffic (e.g., roads, streets, service drives, walks, parking areas, open storage area, and airfield paved areas), including base and subbase courses.

NOTE TO WRITER: The following documents are applicable to surfaced area, related and associated area, structure and appurtenance maintenance and repairs. Consolidate as applicable. Specific paragraphs of TMs, etc., listed must be inserted by the installation.

Technical Manuals:

<u>No.</u>	<u>Title</u>
TM 5-312	Military Fixed Bridges
TM 5-623	Pavement Maintenance Management
TM 5-624	Maintenance and Repairs of Surfaced Areas
TM 5-630	Natural Resources Land Management
TM 5-665	Operation and Maintenance of Domestic and Industrial Wastewater Systems
TM 5-818-4	Backfill for Subsurface Structures
TM 5-818-6	Grouting Methods and Equipment
TM 5-820-1	Surface Drainage Facilities for Airfields

and Heliports
 TM 5-820-2 Drainage and Erosion Control Subsurface
 Drainage Facilities for Airfields
 TM 5-820-3 Drainage and Erosion Control Structures
 for Airfields and Heliports
 TM 5-820-4 Drainage for Areas Other than Airfields
 TM 5-822-2 General Provision and Geometric Design
 for Roads, Streets, Walks, and Open Storage
 Areas
 TM 5-822-4 Soil Stabilization for Pavements
 TM 5-822-7 Standard Practice for Concrete Pavements
 TM 5-822-8 Bituminous Pavements Standard Practice
 TM 5-823-4 Marking of Army Airfield Heliport Operational
 and Maintenance Facilities
 TM 5-830-3 Dust Control for Roads, Airfields, and Adjacent
 Areas
 TM 38-750 The Army Maintenance Management System

Other:

FS SS-S-1401 Sealing Compound, Hot Applied for Concrete
 and Asphalt Pavements
 FS SS-S-1614 Sealing Compound, Jet Fuel Resistant, Hot
 Applied, One Component, for Portland
 Cement and Tar Concrete Pavements
 MIL STD UREA - Technical (metric) DOD-U-10866
 MIL STD Anti-Icing and Deicing - Defrosting Fluid MIL-
 A-8243
 CERL Publication Technical Report M-26 Volume II,
 Distress Identification Manual

Commercial:

Manual of Uniform Traffic Control Devices for Streets and
 Highways (MUTCD) - Available from Supt. of Documents, US
 Government Printing Office, Washington, DC 20402

Manual of Traffic Engineering Studies - Available from Institute
 of Traffic Engineers, P.O. Box 9234, Arlington, VA 22209

Highway Safety Program Standards GF/M Volumes 12
 (Highway Design, Construction, and Maintenance), 13 (Traffic
 Engineering and Services), and 14 (Pedestrian Safety) -
 Available from Department of Transportation, Federal Highway
 Administration, Washington, DC 20590

State of (specify) Department of Transportation Highway Stand-
 ards and Procedures

AASHTO Manual for Maintenance Inspection of Bridges -
 Available from Supt. of Documents, US Government Printing
 Office, Washington, DC 20402

NOTE TO WRITER: The following list of example
 performance work statements should be reviewed to delete any
 item exceeding installation minimum need, and any minimum
 need added, if not listed.

C.7.13.2 Program Development: The Contractor shall survey
 the condition of all pavements IAW TM 5-623 and develop a
 comprehensive, defensible, annual work plan and a five (5)-year
 maintenance, repair, and improvements program. Annual
 requirements shall be identified on job order requests for
 integration into the overall work plan (DA Pam 420-6).

C.7.13.3 Pavements Maintenance Management: The Contractor
 shall establish and maintain a pavements maintenance
 management system, for use by the Government, as set forth in
 TM 5-623. The system shall include network identification;
 condition survey and rating (PCI); determination of feasible
 maintenance and repair (M&R) alternatives and the cost effec-
 tiveness of such alternatives, based on life cycle costing;
 establishment of initial M&R priorities; and manual/automated
 data management.

C.7.13.4 Maintenance and Repair of Paved Surfaces: The
 Contractor shall inspect, maintain, and repair paved surfaces
 IAW AR 420-72, DA Pam 420-6, TMs 5-623, 5-624, and 5-
 630. The Contractor's work shall include the following:

a. Repair of potholes, upheavals, and alligator-cracked
 areas by removal of damaged material to firm base, squaring of
 vertical edging, cutting the edges of the repaired areas vertically,
 and prime, patch, and compact after the road subbase material
 meets compaction requirements specified in TM 5-624.

NOTE TO WRITER: Overlaying of a street or parking lot is
 not within the scope of this guide. Overlay projects should be
 a separate solicitation.

b. The Contractor shall repair overlay of concrete pavement which is cracked, scaled, or spalled. (Specify, define)(standard)(etc.) The Contractor shall seal/fill joints, cracks, or voids in overlay IAW TM 5-624. (If TM 5-822-8 is applicable, specify.)

c. Seal cracks one-fourth of an inch or wider in bituminous pavement with a prepared joint sealer that meets Federal specification FS-S-1401 for most asphaltic pavements and FS SS-S1614 for areas subject to jet fuel spillage. Cracks shall be cleaned and dried prior to sealing. (Specify any other fuels subject to spillage which might cause damage.)

d. Repair rigid pavement slabs when structural defects exist.

e. Maintain road shoulders (specify distance) to protect the basic pavement structure, eliminate traffic hazards, and provide proper drainage by leveling ruts and washes, filling in low areas, and cutting down high areas to maintain the specified grade and slope (insert estimated frequency).

f. Maintain the free flow of traffic during pavement repairs through the use of traffic control methods or devices. The Contractor shall inform the Contracting Officer, (specify) days in advance, of detours or potential disruption of traffic flow.

g. Perform utility cuts in pavements. Historical data show an average of (specify) cuts per year. Repair utility cuts by backfilling trenches with select materials compacted to densities established in original construction. Apply bitumen or concrete to match existing pavement. In asphalt pavements, the fill shall be terminated eight (8) inches below the surface. Place a concrete mat six (6) inches thick and 24 inches wider than the utility cut. After the concrete mat has cured, apply asphalt, two (2)-inch wearing course. For minimum pavements, a six (6)-inch patch equal to the existing concrete slab, 24 inches wider than the utility cut, shall be used IAW TM 5-818-4. Utility cuts shall be made in a straight line to preclude irregular or ragged pavement cuts.

h. Sweep paved streets and parking areas. (Specify if vehicles, etc., will be removed, etc.; any specific weekdays, frequency and standard, not to be accomplished during snow, rain etc.; expand to include a standard end product.)

C.7.13.5 Maintenance and Repair of Earth Surface Roads: The Contractor shall maintain and repair earth surface roads IAW TM 5-624, and TM 5-822-4. The work shall include the following:

a. Maintain shoulders so as to allow proper (define) surface drainage and to protect the road edge. Grass or other treatment may be required to prevent erosion IAW TM 5-820-1 through 4.

b. Maintain gravel and other earth surface roads by blading or dragging the surface until all ruts and holes are filled. Maintain a smooth surface and a uniform crown that permits proper (define) drainage IAW TM 5-624.

c. Haul fill material from borrow pits or material storage areas to earth surface roads to use for filling in ruts and holes. (Specify how or where the Contractor will obtain, etc.)

d. Apply dust palliative to earth surface roads to control dust and prevent erosion IAW TM 5-830-3. Roads requiring dust control are identified in attachment (specify). (Estimate frequency, etc.)

C.7.13.6 Maintenance and Repair of Airfields: The Contractor shall maintain and repair airfield pavements IAW TM 5-823-4. Airfield pavement maintenance shall include the following:

a. Repair potholes, depressions, upheavals, and alligator-cracked areas by removing damaged material to firm base, cutting the edges of the repaired areas vertically square or rectangle, tacking edges, patching, and compacting after the road subbase material meets compaction requirements IAW TM 5-624.

b. Repair overlay or bituminous pavements which have developed local failures (specify). Prepare surface properly (define) before patching potholes, raveling, and alligator-cracked areas; sealing all cracks wider than one-fourth of an inch; removing areas containing excess (define) bitumen and replacing with suitable material (specify acceptable materials); sealing all porous patches to prevent leaching of bitumen; and cleaning the surface thoroughly IAW TM 5-822-8. (If TM 5-624 applies, specify).

c. Clean, dry, and seal cracks one-fourth of an inch or wider in bituminous pavement with a prepared joint sealer that meets Federal specification SS-S1401 for most asphaltic pavements and FS SS-S-1614 for areas subject to jet fuel spillage IAW TM 5-624.

d. Replace existing joint sealing material. No sealing material shall be permitted on the concrete. Any spillage or

overpouring shall be removed IAW TM 5-822-7.

e. Replace rigid pavement slabs in whole or in part when structural defects exist and slabs have settled. All removed sections shall be sawed to provide a clean, straight edge IAW TM 5-624.

f. Sweep airfield (specify) (to be based on expected airfield use). Magnetic and vacuum sweepers shall be used. (Installation will establish standards of acceptance.) (Expand to reflect end product.)

g. Obtain clearance from airfield operations personnel through the Contracting Officer to perform maintenance and repair work on airfield in order to minimize disruption of airfield traffic.

h. Replace broken or burned-out runway light bulbs along airstrips as necessary to provide that (specify) percent of runway lights are operative during night hours of airfield operation IAW TM 5-823-4. (Insert any requirement to perform at night.)

i. Maintain Army airfield and heliport pavement marking patterns IAW TM 5-823-4.

C.7.13.7 Vegetation Control: The Contractor shall remove vegetation from pavement cracks, joints, etc., to include airfields IAW AR 200-1.

C.7.13.8 Maintenance and Repair of Storm Drainage Systems: The Contractor shall maintain and repair storm drainage systems IAW TM 5-820-4. The work shall include the following:

a. Inspect drainage system (specify) times each (specify). A written report of inspection shall be forwarded by the Contractor to the Contracting Officer within (specify) from time of inspection.

b. Maintain ditches and channels by keeping drainage ditches clear of weeds, brush, sediment, and other accumulations that obstruct the flow of water. Maintain ditch line and grade; correct sags and minor washouts; dispose of sediment, weeds, brush, etc., by

hauling to area shown in technical exhibit (specify) (Ref. AR 40-5, TMs 5-624, 5-820-1, 5-820-2, and 5-820-3).

c. Inspect and clean catch basins, drop inlets, manholes, and similar structures on a regular schedule, based on the rate of silting or clogging with debris, to maintain proper (define) runoff.

d. Replace/repair broken or damaged manhole covers as required. (Installation will insert standards and acceptable damage limits.)

e. Clear clogged storm sewers IAW TM 5-665. (Installation will insert standards.)

f. Remove leaves from surfaced areas, curbs, and gutters during the fall season to prevent clogging of drainage system. Haul leaves to (specify).

g. Repair or replace damaged, broken, or collapsed pipes, or clear and clean clogged drainage pipes by reopening pipe trench and repairing or replacing pipe. The excavation shall be compacted and the surface area restored to its original condition IAW TM 5-665.

h. Excavate pavement to gain access to sewer or drainage facilities or other utilities for repair work.

i. Sweep gutters and curbs once each (specify) to prevent accumulation of sediment and debris which cause clogging of drainage system.

C.7.13.9 Erosion Control: The Contractor shall perform the following erosion control services:

a. Maintain curbs, gutters, swales, dikes, etc., where required for adequate drainage and to control road shoulder erosion. This shall require spot replacement of deteriorated curbs and gutters.

b. Repair or replace headwalls to prevent erosion or scour of the embankment adjacent to culvert inlets.

c. Control and repair erosion problems by maintaining energy dissipators, crib structures, and vegetation covers. (Installation will insert estimated frequencies and standards.)

C.7.13.10 Traffic Services: The Contractor shall perform the following traffic services IAW Manual on Uniform Traffic Control Devices (MUTCD) for streets and high

ways IAW TM 5-822-1. (If TM 5-822-1 is applicable, so state.)

a. Maintain and repair traffic regulatory, warning, and guidance signs; signals; lane markings; islands; and delineators. Keep traffic signs in position, clean, and legible at all times. Repair and replace damaged signs, signals, guardrails, guardrail posts, etc., within (specify) days of damage. Critical traffic signs as specified in (insert) shall be replaced with a temporary sign within (specify). If this is not possible, the Contracting Officer shall be notified within (specify); notification will be by (specify). Inspect traffic signs once each (specify) in order to insure that signs and signals are in good operating order and are legible.

b. Maintain an inventory map and legend of all traffic control signs IAW Highway Safety Program Standards, Volume 13, including the description, location, erection date, maintenance schedule, and justification for placement of the sign/signal. (An updated inventory map should be available at time of bid preparation.)

c. Repaint pavement markings annually to maintain clear visibility.

d. Clear accident debris from roads within (specify) hours of request by Contracting Officer during duty hours and (specify) hours of request during nonduty hours. Debris removal shall be required approximately (specify) times annually.

C.7.13.11 Bridge Maintenance and Repair: The Contractor shall maintain and repair bridges. Work shall include the following:

a. The Contractor shall inspect bridges annually and as made necessary due to the amount and intensity of rainfall, freeze-thaw conditions, or traffic changes which affect the condition of the pavements. The Contractor shall report complete and accurate inspection results to the Contracting Officer in writing within (specify) from time of inspection.

b. Repair bridges IAW TM 5-624 for specific type of bridge. (Specify limits of repair to be made by the Contractor.)

C.7.13.12 Snow Removal and Ice Control: The Contractor shall develop and submit for review and approval a

snow and ice control plan IAW AR 420-72. The Contractor shall perform the following snow removal and ice control services:

a. Establish priorities for clearance of designated areas and provide operators and equipment to accomplish the task. The Contractor's plan shall designate locations for snow fences and markers; establish an inventory of materials for snow and ice removal; establish a snow control center; establish a traffic and parking control procedure; establish communication channels and priorities between road users, the snow control center, and equipment operating crews; designate areas from which snow must be hauled when accumulation reaches an established level; and establish procedures for adding additional crew and equipment in the event of a major incapacitating storm. The Government's current snow removal plan is available for use if desired. (Estimate tons and types of materials the Contractor will need to establish snow removal. State where plans may be reviewed.)

b. Conduct inspections of all areas to insure that snow removal is accomplished as specified.

c. Remove snow from designated roads and parking areas according to priorities established in the Contractor's snow removal plan. (Specify if to bare pavement.)

d. Remove snow from airfield to bare pavement according to priorities established in the Contractor's approved snow removal plan.

e. Apply abrasives or chemicals for ice control on airfield and remove ice to bare pavement. All abrasives, chemicals, and application methods must be reviewed and approved by the Government. UREA meeting the provisions of Military specification MIL-4-10866C, Class 2, or US Air Force Aircraft deicing fluid meeting the provisions of Military specification MIL-A-8243 may be used on airfield and heliport pavements without further review as these materials are noncorrosive to aircraft materials.

f. Apply abrasives or chemicals for ice control on other (specify) pavements according to priorities established in the snow removal plan. Except as noted in C.5.2.13.5 above for UREA, all application methods must be reviewed and approved by the Contracting Officer.

g. Furnish sand in barrels where required by the snow removal plan (specify number of barrels and their placement).

h. Insure that snow is removed so that refuse containers are accessible for deposit of trash and pickup of containers.

i. Erect snow fences to prevent snowdrifts across roads and other access areas, and erect markers for identifying culverts, fire hydrants, and other obstructions. Care shall be taken to prevent damage of these items by snowplows.

j. Supervise plowing and sanding operations of all roads, parking lots, and other snow removal areas.

k. The Contractor shall implement the Contractor's snow removal plan (which will) (complete this paragraph as applicable to the installation) (specify any office space requirements, at whose cost, etc.).

C.7.13.13 Maintenance of Firing Ranges and Tank Trails: The Contractor shall maintain and repair firing ranges and tank trails. The Contractor's work shall include the following:

a. Blade and drag tank trails, tank tables, access roads, to insure that roads and trails are passable for tank and motor traffic (military wheeled vehicle). Maintain shape surfaces of roads, trails or tables to maintain an even surface, and a uniform crown to maintain drainage (specify frequency).

b. The Contractor shall obtain permission from range control through the Contracting Officer prior to any performance of maintenance and repair activities on firing ranges. The Contractor's work will include grass cutting, clearing drainage, grading berms, (etc.) (specify).

***NOTE TO WRITER:** Depending upon the use of the range (i.e., small arms, artillery, or other explosive ordnance), insure that an EOD Survey Team checks the area prior to the Contractor performing work.*

C.7.13.14 Maintenance of Recreation Facilities: The Contractor shall maintain and repair recreation facilities. The Contractor's work shall include:

a. Patching pavement on playing courts to maintain surface.

b. Maintaining drainage system around playing fields to include court ditches and sluiceways to direct water flow.

C.7.13.15 Maintenance and Repair Activities in Support of Troop Units: The Contractor shall perform the following services for maintenance and repair in support of troop units:

a. Jointly inspect State, county, and municipal roads with State, county, and municipal road officials upon notification by the Contracting Officer both prior to and following troop maneuvers to determine condition before and after maneuvers and extent of necessary repairs; write and submit inspection report to the Contracting Officer (specify format, specify estimated frequency of occurrence per year, etc.).

b. Clear debris and repair damage to roads resulting from troop maneuvers.

c. Repair damage at all tank crossings on State, county, and municipal roads resulting from troop maneuvers. (Installation will establish any requirements to include estimates.)

***NOTE TO WRITER:** State and county roads are normally maintained by the State or county. The State or county may make repairs and bill the Government. Word your requirements accordingly. Insert any Contractor responsibility.*

C.7.13.16 Local Materials Survey: The Contractor shall maintain records of location and content of borrow pits containing supplies of raw materials for use in maintenance and repair of surfaced areas. The Government will provide the Contractor with the initial survey.

C.7.13.17 Support to Reserve Facilities: The Contractor shall provide maintenance and repair support to Reserve Centers within the geographic area as shown in attachment (specify) to include maintenance and repair of roads, airfields, traffic signs, bridges, drainage systems, and provide snow removal and ice control. All support shall meet standards specified for other paved areas (or specify standards as applicable).

C.7.13.18 Support to Family Housing: The Contractor shall provide maintenance and repair support to family housing real property facilities, including maintenance and repair of roads, drainage systems, bridges, traffic signs and signals, recreation facilities, and provide snow removal and

ice control. These areas are shown in attachment (specify).

C.7.13.19 Preventive Maintenance: The Contractor shall perform the following preventive maintenance services:

a. Inspect all surfaced areas, related appurtenances, and associated structures. Provide maintenance and engineering services and planning as specified (if not specified it will not apply). Inspect twice a year prior to spring thaw and winter season. Keep records showing description of the area, date of inspection, maintenance required, and work accomplished. (Installation will specify the specific months for spring and winter season inspection, and specify work to be accomplished on the Contractor's own initiative.)

b. Inspect and grade unpaved roadway surfaces and maintain unpaved roads in a smooth and well-drained condition. Inspect and repair unsurfaced roads (specify) each time used for troop maneuvers, after heavy storms, or when damaged by extremely dry weather. Report to the Contracting Officer in writing any conditions found which exceed the Contractor's responsibility (specify frequency). Grading is estimated to occur (specify) (etc.) (include quantity).

c. Inspect concrete pavements and joints for spalling, scaling, cracking, pumping, settlement, etc.; seal cracks and joints; and perform preventive maintenance activities as necessary. Report to the Contracting Officer any conditions found which exceed the Contractor's responsibility for cost (specify frequency).

d. Inspect road shoulders and maintain to prevent slides and maintain pavement edge. Report to the Contracting Officer any conditions found which exceed the Contractor's responsibility for cost (specify frequency).

e. Inspect for debris, cave-ins, and other stoppages in drainage systems. Check systems for peakload requirements during storms and make note of any deficiencies. Inspect culverts, inlet headwalls, and exits for erosion, sediment, and wash. Report to the Contracting Officer any deficiencies found which exceed the Contractor's responsibility for cost.

f. Inspect for signs of deterioration in bridges and retaining walls, e.g., rust in metal structures, damage and decay in wood, and cracking, spalling or chemical damage in concrete. Perform maintenance and repairs as specified (if not specified, it will not apply).

g. Inspect airfields to determine the extend of deterioration such as roughness, depressions, scaling, spalling, joints, and cracking. Perform maintenance IAW TM 5-823-4.

C.7.13.20 Bridge and Pavement Inspection: The Contractor shall perform the following bridge and pavement inspection services IAW TM 5-312:

a. The Contractor shall inspect bridges annually during the month of (specify) to determine structural soundness and analyze or revalidate bridges' load-carrying capacity. Refer to AR 420-72, TM 5-312, and AASHTO Manual for Maintenance and Inspection of Bridges. Maintain records of bridge inspection and analysis and establish a bridge inventory data base in the manner prescribed in US Department of Transportation/Federal Highway Administrative Publication entitled "Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation's Bridges."

b. Maintain safe load limit signs at bridges, culverts, and trestles.

c. Maintain military class number signs as listed in TM 5-312, at all bridges located on military installations which are being utilized to move military equipment not normally associated with vehicular highway movement.

d. Inspect maintenance and repair work in progress and insure timely completion of quality work.

C.7.13.21 Load and Speed Limitations: The Contractor shall provide, install, and maintain load and speed limit signs on roads susceptible to frost and spring thaw damage during spring thaw season. Upon Contracting Officer approval, the Contractor may close roads temporarily to traffic if an alternate route exists. The Contractor shall obtain approval of the Contracting Officer before rerouting traffic or closing roads. Road opening, closing, and condition must be furnished to the Fire Department.

NOTE TO WRITER: A listing of record and reporting requirements follows. Where no format is prescribed, the Contractor shall develop a record or form appropriate for documentation and historical record. Reports will be identified to the function and consolidated as applicable.

a. Inventory Map of Traffic Control Devices: Submitted annually IAW AR 55-80.

b. Records of Local Materials Survey: Submitted (specify) and 14 days prior to termination of contract.

c. Labor and Equipment Utilization, DA Form 4288: Submitted (as required) and upon completion of individual job.

d. Inspection Reports: Submitted twice yearly: 30 days after contract start date and six (6) months after contract start date.

e. Record of Bridge Inspection and Analysis: Submitted annually on (specify) days after start of contract and 14 days prior to termination of contract.

f. Schedule of Work: Submitted monthly: 10 days prior to contract start date and update every month by 21st day of preceding month.

g. Quality Control File: Submitted as required and 14 days prior to termination of contract.

h. Contractor Point of Contact for Emergencies: Submitted as required. Update to keep current.

i. Snow Removal Plan: Submitted once (specify) days after contract start date.

C.7.14 RAILROAD MAINTENANCE, REPAIR, AND MINOR CONSTRUCTION:

C.7.14.1 Scope: The Contractor shall perform all work and services necessary to maintain the railroad system in a safe operable condition at all times. The Contractor shall inspect, schedule, and provide all maintenance, repairs, and minor construction as specified. There are approximately (specify) miles of track and (specify) bridges. Attachment (specify) shows the location and layout of the system. Railroad facilities shall be maintained IAW Federal Railroad Association Class Standards. Class 2 or better trackage shall be maintained to its current classification, consistent with operational needs, safety, and efficiency. Active trackage that does not meet Class 2 standards shall be maintained in a manner to safely permit five (5) miles per hour (mi/h) traffic until upgrading is achieved. Once upgraded, that new grade classification shall be maintained. Facilities include general- purpose trackage used for transporting personnel and material, crane tracks, standard and narrow gauge tracks used for transport of targets on artillery, tanks, and other (specify other) moving target ranges. Apparatus that shall be maintained include roadbeds, tracks, bridges, trestles, culverts, other drainage structures, track scales, traffic devices, signs, signals, safety devices, and other (specify) features and items necessary to meet operational, safety, efficiency, etc., and allow use at the prevailing weight, speed, and density of traffic. The

Contractor's rail inspector shall meet qualifications of Section 213.7 and Section 213.233 of the FRA track safety standards.

NOTE TO WRITER: The following documents are applicable to railroad maintenance services: Consolidate as applicable.

<u>No.</u>	<u>Title</u>
AR 210-17	Inactivation of Installations
AR 405-90	Disposal of Real Estate
TM 5-370	Railroad Construction
TM 5-624	Maintenance and Repair of Surface Areas
TM 5-627	Maintenance of Trackage
TM 5-629	Weed Control and Plant Growth Regulations
TM 5-630	Natural Resources Land Management
TM 5-848-2	Handling of Aircraft and Automotive Fuels
TM 5-850-2	Railroad Design and Construction at Army and Air Force Installations
TB 420-26	Trackage Handbook
TB 420-27	Trackage Formulas

Specifications and Standards:

MIL-R-3518C	Rails, Tee Railway
MIL-R-3911B	Rails, Tee Railway; Relayer Rail
MIL-R-3964A	Bolts and Nuts, Track
MIL-T-1129B	Turnout, Railway
MIL-D-11302C	Derail, Railway
MIL-STD-12368C	Joint Bar, Rail
MIL-STD-271	Magnetic Particle Test
MIL-STD-822A	System Safety Program for Systems and Associated Subsystem and Equipment
Mil-B-3964B	Bolts and Nuts, Track
Mil-J-12368D	Joint Bar, Rail
Mil-T-12270C	Tie Plate: Railway
Mil-T-11292C	Turnout, Railway (unassembled complete with low stand throw and rigid bolted frog).

Local Installation Documents:

Installation Land Management Plan (Trackage Drawing)

Other Documents:

Manual for Railway Engineering, Construction, and Maintenance Section, Area Portfolio of Track Work Plans - Available from American Railway Engineering Association, Engineering Division, 59 East Van Buren Street, Chicago, IL 60605 (at Contractor's expense)

Manual of Uniform Traffic Control Devices for Streets and Highways - Available from US Department of Transportation, Federal Highway Administration, 400 7th Street, SW, Washington, DC 20590 (at Contractor's expense)

Federal Railroad Association Standards, American Railway Engineering Association (AREA) Publication, Vol. 1, March 1975, Manual for Railway Engineering

Interim U.S. Army Railroad Trackage Maintenance Standards, Oct 1986. This document also covers training and certification of inspectors, inspection and record keeping and track inspection reports. This document should be obtained and used to develop work statements and acceptance standards.

NOTE TO WRITER: *The following are examples of PWS tasks and services that should or may be performed by the Contractor. The Contractor shall perform all work necessary to maintain the railroad on the installation. The examples may be selected and/or modified to met a particular installation's requirements.*

C.7.14.2 **Rails:** The Contractor shall maintain all rails. Work shall include:

a. Rail shall be maintained by the Contractor to comply with American Railway Engineering Association (AREA) specifications described in the Manual for Railway Engineering, Chapter 4, Parts 1 and 2, and MIL-R-3911. All rail and fastenings shall be maintained and protected against corrosion to prolong service life. Track bolts, joint bars, and turnout fixtures shall be oiled. Rail, tie plates, and spikes shall be oiled when subject to corrosive conditions affecting ultimate life. Oil for this purpose shall meet or exceed the following:

- (1) Flash point, minimum 130°F.
- (2) Asphalt, 100 penetration, minimum 45 percent.
- (3) Viscosity, Saybolt Universal, 130°F. 240 to 350 seconds.

b. Rails for a minimum distance of 100 feet on each side of structures, including loading docks where explosives, ammunition, or explosive mixtures are stored, handled, or processed are bonded electrically. Rails are grounded at points 150 feet on each side of locations where they are crossed by electrical distribution lines. Grounding includes bonding between rail sections and installation of ground electrodes, connections between ground electrodes and rails, and interconnections of spur track with building grounding systems

where they are within 25 feet of each other. The Contractor shall maintain continuous and effective bonding of all bonding sites.

C.7.14.3 **Bolts:** The Contractor shall maintain, repair or replace all bolts. The Contractor's work shall include:

a. Track bolt assemblies (bolt, nuts, washers) shall be maintained in good condition, either salvaged or new in conformance with MIL-B-3964. They shall be of proper length and size for the joint bars and rails in which they are used. Not less than one full turn of bolt thread shall project from the nut. Spring washers shall be of correct size and conform with AREA specifications.

b. Track bolt tension shall be maintained within a range of 20,000 to 30,000 pounds per bolt on initial tightening, and in a range of 15,000 to 25,000 pounds for subsequent tightenings. Contractor installed bolts shall be retightened the following day and again one (1) week following installation. Bolt assemblies shall be lubricated with corrosion inhibitor before initial installation and prior to each tightening. (Specify acceptable type of corrosion inhibitor.)

C.7.14.4 **Joint Bars:** The Contractor shall maintain, repair, or replace all joint bars. The Contractor's work shall include:

a. Joint bars, including compromise bars, shall be maintained and shall comply with MIL-J-12368. They shall have the size, shape, and punching pattern to fit the rail as described in AREA criteria. New or salvaged bars shall be maintained in good condition. "Long toe" joint bars shall not be installed where spike slots must be used to spike rail joints to alignment because of the tie punching pattern.

b. Compromise joint bars shall be maintained and shall conform to the section and drilling pattern of each rail at the connection per AREA standard. Offset at surface or gauge side alignment shall not exceed one-

eighth inch. Joints shall not be located on open deck trestles or bridges, or within the limits of switch ties.

c. Joint bars shall be maintained in good condition and shall be held securely in place by the full number of track bolt assemblies. Nuts shall be alternately placed on the gauge and field side of rails, and shall be drawn tight. Joint shims shall be installed to compensate for wear of the upper and lower rail contact surfaces, restore joint bar takeup, and correct drooped rail end conditions.

C.7.14.5 Spikes: The Contractor shall maintain, repair, or replace all spikes. The Contractor's work shall include:

a. Spikes shall conform to AREA standards. New or salvaged standard and screw spikes shall be used for new or relayer rail installed by the Contractor. Missing and loose spikes shall be replaced.

b. Standard-size cut spikes, 5/8 by 6-1/2 inches, shall be used on all cross and switch ties installed by the Contractor. Shimmed spikes shall be 5-1/2 inches plus the thickness of the shim taken at 1/2-inch intervals.

c. Screw spikes shall be 13/16 by 5-1/2 inches and shall be used for all tie plates installed by the Contractor.

C.7.14.6 Tie Plates: The Contractor shall maintain, repair, or replace all tie plates. The Contractor's work shall include:

a. Tie plates installed by the Contractor shall be of the proper dimension and punching pattern to fit the rail. New rail installation shall conform to MIL-T-12270. Used tie plates in good condition may be utilized if they are of proper size and punching.

b. Tie plates installed by the Contractor shall not be smaller than 7-1/2 by 10 inches for 90-pound or lighter rail, and 7-1/2 by 11 inches for rail weighing more than 90 pounds.

c. Tie plates shall be maintained properly seated and free of breaks. Cracked, broken, loose, or missing tie plates shall be replaced. Rail shall have full bearing on the tie plate, and the tie plate shall have full bearing on the tie. Seating and condition requirements pertain both to existing tie plates and those used in new rail installation or rail tie maintenance.

C.7.14.7 Rail Braces: The Contractor shall maintain, repair, or replace all rail braces. Rail braces installed by the Contractor shall be of standard manufacture and design. Rigid braces or adjustable switch rail braces shall fit against the side of the rail or guardrail and shall be spiked to the tie outside the track or inside the guardrail.

C.7.14.8 Anchors: The Contractor shall maintain, repair, or replace all anchors. Anchors installed by the Contractor shall be of standard manufacture and sized to fit the rail section. They shall grip the base of the rail firmly and have full bearing against the face of the tie opposite the direction of rail creepage. Anchors shall be used where required; associated ties will be fully imbedded in the ballast. When the bearing of a rail anchor is disturbed, the anchor shall be removed and reset.

C.7.14.9 Plates: The Contractor shall maintain, repair, or replace all plates to include:

a. Slide plates shall be installed to gauge on the headblocks and the switch point. The inside lead rail shall be lined to the proper gauge distance from the side track and the remainder of the slide plates and rail braces installed.

b. Riser plates shall be maintained in conformance with AREA standards to provide a shoulder to prevent lateral movement of the main rail inward.

C.7.4.10 Switch Stands: The Contractor shall maintain, repair, or replace all switch stands. The Contractor's work shall include:

a. Switch stands installed by the Contractor shall be of the low-stand (or ground-throw stand) type. Stands shall be maintained firmly spiked to the headblock ties, and set plumb, with target square with the track. The throwing lever shall be on the outside, or away from the turnout, when the switch is set for main track operation. Stands shall be equipped with switch targets which shall show the "Proceed" color when the switch is set for the main track and the "Stop" color when the switch is open. Main track switches which are not interlocked shall be kept padlocked at all times except when in actual use or when being inspected. When possible, stands shall be placed on the turnout side of the track so that the connecting rod will be in tension. Throw levers shall not be operable with the lock or keeper in place. Throw range shall be five (5) inches if nonadjustable and between 4-1/2 and 5-1/2 inches, and 1/8-inch (maximum) increments, for adjustable throws. Defective stands, connecting rods, switch head rods, and connecting bolts shall be replaced by

the Contractor. Components will be lubricated to insure throw is free, easy, and does not bind.

b. Switch stands installed by the Contractor shall be equipped with one of the following:

(1) Reflecting switch lamp with standard commercial-type double red and white reflecting lenses. Day signal targets shall not be installed.

(2) Reflecting lamps with daylight disks shall be fitted with standard double red and white reflecting lenses and with day signal targets.

(3) Illuminated lamps shall be equipped with a primary battery, battery housing, and cable.

c. Parts provided and installed by the Contractor shall be of standard manufacture, and shall meet AREA manual specifications and Military Specification MIL-T-11292. Used components approved by the Contracting Officer, in writing, shall meet new component specifications. It is not necessary for all parts to be of the same manufacture; however, each turnout shall consist of parts of a single manufacturer.

C.7.14.11 Heelblocks: The Contractor shall maintain, repair, or replace all heelblocks. Heelblocks and associated components installed by the Contractor shall be of standard manufacture and design. Blocks shall be maintained secure and in serviceable condition. Bolts in each heel shall be kept tight.

C.7.14.12 Switch Points: The Contractor shall maintain, repair, or replace all switch points. Stock rail shall be securely seated in switch-plates. Each switch point shall fit its stock rail, with the switch stand in either of its closed positions to allow wheels to pass the switch point. Lateral and vertical movement of stock rail in the switchplates, or movement of a switchplate on a tie, shall not adversely affect the fit of the switchplate to the stock rail. Chipped or worn switch points shall be repaired or replaced by the Contractor. Metal flow shall be removed to insure proper closure. Slide plates shall be installed on the heelblocks and the switch point to gauge. The joint gap between switch and rail and stock rail shall not exceed 1-1/4 inch for bolted connections. Maximum space between switch point and stock rail shall not exceed one-eighth inch. Horizontal misalignment between switch and closure rails shall not exceed three-sixteenths inch.

C.7.14.13 Frogs: The Contractor shall maintain, repair, or replace all frogs. Defective frogs, joint bars, and bolts shall be disconnected and removed, and a replacement set in place by the Contractor. All frogs shall be fastened to switch ties by frog tie plates and fully spiked. All bolts shall be tightened with cotter pins in place. Frogs shall be free of obstructions that might interfere with wheel passage. When new frogs are required, the solid manganese self-guarded frog shall be provided (available Government stock of rigid bolted frogs is acceptable). Spring rail frogs are prohibited and shall be replaced with standard rigid frogs. Use of the standard bolted frog requires installation of guardrails to protect the frog point and assist in prevention of derailment.

C.7.14.14 Derails: The Contractor shall maintain, repair, or replace all derails. Derails shall be maintained clearly visible. When in a locked position, it shall be free of any lost motion which would allow the derail to be operated without removing the lock. Defective derails shall be removed and a replacement installed in the same location by the Contractor. Derails shall not be placed in locations where they would cause derailed equipment to obstruct other track. When the lever of a remotely controlled derail is operated and latched, it shall actuate the derail.

C.7.14.15 Ties: The Contractor shall maintain, repair, or replace all ties. The Contractor's work shall include:

a. Use of wooden ties for trackage shall be continued. (However, where warranted and specified or if directed by the Contracting Officer, the Contractor shall use concrete ties in sections which are expected to encounter heavy traffic or where inspection and maintenance work would result in difficult operational problems (TM 5-627, para 3-9)). Face-to-face distance between ties shall be 10 to 15 inches; maximum skew shall be one (1) inch. (Installation will specify type of ties to be used in specific terms. Consideration should be costs and effectiveness.)

b. Serviceable ties may be stored by the Contractor at the work site in convenient locations. However, ties shall not be stacked within 10 feet of the rail, at public crossings, at points where the view of trainmen or personnel approaching the track would be obstructed, or where work would be impaired.

c. Wood ties provided by or utilized by the Contractor shall be pressure treated and conform in design and specification to AREA standards or Federal specifications (specify). Field treatment shall be conducted by the Contractor when necessary to supplement pressure treatment (when wood has been exposed due to cutting, dazing, boring, etc.). Unused boreholes or spike holes shall be filled with tight-fitting, softwood, treated plugs driven into the holes.

d. Tie replacement or reuse shall comply with the provisions of TM 5-627 (para 3-11). Ties on existing Class 2 and above rail sections shall be maintained so that trackage retains its classification. Ties on active Class 1 trackage shall be maintained in suitable condition to permit not less than a five (5) mi/hr safe train speed. Maximum train speed on active trackage that does not meet Class 2 standards is 10 mi/hr.

e. Crossties are defective when: broken through; split or impaired to the extent that they will not hold spikes or will allow the ballast to work through; the tie plate is capable of moving laterally more than one-half inch relative to the crosstie; cut by the tie plate through more than 40 percent of its thickness; and when not spiked as required by paragraph 213.127 of the FRA Track Safety Standards. When timber crossties are used, each 39 feet of track shall be supported by nondefective ties IAW the following:

(1) Class 1: Five (5) nondefective ties on 100 inch centers.

(2) Class 2, 3: Eight (8) nondefective ties on 70 inch centers.

(3) Class 4, 5: Twelve (12) nondefective ties on 48 inch centers.

(4) Class 6: Fourteen (14) nondefective ties on 48 inch centers.

f. Supported Joints: For Class 1 track, one (1) of the three (3) ties (at and adjacent to the joint) shall be nondefective. For Class 2 and 3 track, the nondefective tie shall be at the joint. Class 4, 5, and 6 track require two (2) of the three (3) ties to be nondefective, one (1) of which shall be the tie at the joint.

g. Suspended Joints: For Class 1, 2, and 3 track, one (1) of the two (2) ties shall be nondefective. For Class 4, 5, and 6 track, both ties shall be nondefective.

h. Bridge/Switch Ties: The length of bridge ties is determined by the design of the bridge on which they are to be used. Contractor-installed replacement ties shall be of the same dimension as the ties being replaced.

C.7.14.16 Road and Street Crossings: The Contractor shall maintain and repair all road and street crossings. The Contractor's work shall include:

a. Road crossings shall be maintained by the Contractor compatible with the type (specify) of traffic using it. Materials used in the maintenance, repair, and replacement of crossings shall be selected based on serviceability and access to the track.

Regardless of materials used, flangeways shall provide 2-1/2 inches for tangent and nominally curved track. On curves of more than eight (8) feet, flangeways shall be 2-3/4 inches.

b. Crossing drainage to catch and divert surface and subsurface water at depressed or downhill crossings shall be maintained by the Contractor. Temporary correction of problem locations shall be accomplished within (specify) after discovery.

c. Street and highway crossings shall be four (4) feet wider through the crossing than the width of approach pavements, two (2) feet on each side.

d. Maintenance and repair of road crossings shall be coordinated by the Contractor, through the Contracting Officer, with the installation Provost Marshal prior to beginning of work. The Contractor shall provide that barricades and warning devices are onhand and all necessary safety precautions (specify where found) are taken before and during the work period.

e. Crossing signs and signals shall be maintained by the Contractor IAW TM 5-627, paragraph 4-15.

C.7.14.17 Ballast: The Contractor shall maintain and replace all ballast. The Contractor's work shall include:

a. Ballast shall be maintained to: transmit and distribute the track load of railroad rolling stock to the subgrade; retain track laterally, longitudinally, and vertically under dynamic loads imposed by railroad rolling equipment and thermal stress exerted by the rails; provide adequate drainage for the track; and to maintain proper track cross level, surface, and alignment.

b. Ballast installed by the Contractor shall conform to AREA requirements for gradation, wear, and soundness.

c. Stone or hard slag ballast shall be cleaned by the Contractor when sufficiently dirty to grow vegetation, or when foreign material restricts proper drainage. Pit run gravel with fines exceeding 30 percent shall be replaced by the Contractor.

d. All bank widening, drainage, and any rail renewal work shall be completed in each track section prior to beginning of ballast cleaning.

e. Following any renewal of ballast all equipment, excess materials, tools, and debris shall be secured or removed. Excess ballast shall be removed from frogs, guardrails, and switches.

C.7.14.18 Drainage Systems: The Contractor shall maintain and repair all drainage systems. The Contractor's work shall include:

a. Drainage or other water-carrying facilities under or immediately adjacent to the roadbed shall be maintained and kept free of obstruction to accommodate water flow. All surfaces shall be sloped toward drainage systems, and slopes maintained to minimize erosion. Obstructions causing water to collect in pools shall be removed.

b. Limits of covered drains shall be marked with signs or markers to facilitate maintenance and inspection.

C.7.14.19 Grounds: The Contractor shall maintain railroad grounds. The Contractor's work shall include:

a. Elimination or control of vegetation from areas within and adjacent to trackage where vegetation is not required for erosion control shall be accomplished. Visibility of all traffic signals shall be maintained.

b. Approved herbicides may be used by the Contractor to eliminate or control vegetation. Personnel handling herbicides shall be certified; evidence of certification shall be provided to the Contracting Officer prior to commencement of treatment. (Consolidate this paragraph with pest control, as applicable.)

C.7.14.20 Guardrails: The Contractor shall maintain, repair, or replace all guardrails. Guardrails shall be maintained consistent with current track classification. Guardrails shall be of standard manufacturer's design. Guardrails may be constructed from new or used rail sections. They shall be built from the same size rail as the turnout at which they are to be used, and shall comply with AREA standards. Similarly, guardrails used on bridges shall not be larger than the running rail. Defective guardrails shall be removed and replaced. (Installation shall spell out where grade classifications are set forth for various applications.)

C.7.14.21 Railroad Bridges: The Contractor shall maintain or repair all railroad bridges. Bridges shall be inspected and maintained to provide specified condition. Inspection shall be performed to insure bolt tightness, maintenance of gauge and alignment, free drainage, and general soundness.

C.7.14.22 Snow: The Contractor shall provide the following snow removal services:

a. The snow plan for railroads developed by the Contractor shall contain the procedures, manpower, and materials to be used under various storm conditions. This plan shall be developed in conjunction with snow plans developed for clearing installation pavement and roads. (The Government plan may be provided for the Contractor use, if desired.)

b. Snow and ice shall be removed from track sections to permit the routine passage of rolling stock. Removal shall be

accomplished at the earliest practicable time (specify time frame) consistent with anticipated usage of the track. (Use of snow fences where heavy drifting is encountered is recommended.) Switches, frogs, guardrails, and flangeways at road crossings shall receive priority attention. Areas where personnel or property may be endangered shall be cleared of snow and ice. Chemical control and use of snow-melting heaters (nonelectric) is permitted. Snow and ice shall not obstruct required signs and signals. (Installation will specify who will provide snow fence materials.)

NOTE TO WRITER: The preceding specification may be deleted for installations where ice and snow conditions have not been known to inhibit rail operations. This requirement will be consolidated with grounds maintenance snow removal requirements and plans to preclude overlap of work.

NOTE TO WRITER: The Contractor shall prepare and submit the following reports. Where no format is prescribed, The Contractor shall develop a record or form appropriate for documentation and historical record. Identify the reports to the function and include as applicable.

a. AC Inspection Documentation: Submit upon termination of contract. Available for inspection at the Contracting Officer's discretion.

b. Inspection Reports: Submit with revised QC plan and six (6) months following contract start.

c. Monthly Maintenance Schedule: Submit at contract start date. Update by 21st day of each month.

d. Personnel Herbicide Handling Certification: Submit prior to any application of herbicides.

NOTE TO WRITER: The installation will either provide a format for the reports, or will permit the Contractor to develop and submit the information in a format most suitable to the purpose.

C.7.15 HOUSING OPERATIONS:

C.7.15.1 Scope:

a. Housing operations include Family Housing, Unaccompanied Personnel Housing, Guest Houses (GH), Distinguished Visitors Quarters (DVQ), Bachelor Officers Quarters (BOQ), and Bachelor Enlisted Quarters (BEQ); furniture and furnishings support; and off-post housing referral. Housing assets are listed in attachment (specify). The Contractor shall provide personnel, supervision, equipment, supplies, and materials to operate the housing division IAW applicable regulations, policy, and local direction of the Functional Area Chief (FAC). The housing division consists of the following functions:

b. Family Housing: This function provides adequate family housing for military and authorized civilian personnel with dependents IAW AR 210-50. ("Adequacy" standards should be stated here.)

c. Unaccompanied Personnel Housing (UPH) (Billeting): This function is for operating permanent party (PP) housing, and TDY facilities which include visiting officers' quarters (VOQ), visiting enlisted quarters (VEQ), distinguished visitors' quarters (DVQ), and guest houses (GH). Eligibility and assignment shall be IAW AR 210-11.

d. Furnishings: This function is to manage and control furnishings in Government-owned and controlled housing IAW AR 210-6. Included is maintenance and repair, delivery, and distribution of furnishings, maintenance, warehouse operation, and collection of charges for Government-issued furniture in rental quarters IAW AR 210-12.

e. Off-Post Housing Referral: This service is an assistance program designed to help the soldier, and Government civilians, locate suitable nondiscriminatory housing in the local

community IAW AR 210-51.

C.7.15.1.1 Specifically, the Contractor shall:

C.7.15.1.1.1 Maximize utilization of all Government-owned and controlled housing to meet Department of the Army established goals of 98 percent for family quarters and 95 percent for unaccompanied personnel housing.

C.7.15.1.1.2 The Contractor shall be thoroughly familiar with housing services and make recommendations to the Contracting Officer for construction, operation and maintenance where efficiency would enhance utilization and/or physical conditions. Include follow-up and feedback controls, with emphasis on reducing costs. Contractor personnel providing housing operations services shall be thoroughly versed in the Army regulations covering the specific services.

C.7.15.1.1.3 Self-Help Program: The Contractor shall establish and administer, or maintain the existing self-help program for occupants of family/troop housing in accomplishing limited (or handyman) maintenance and repair work and minor improvements in housing. Occupants of unaccompanied housing will perform self-help work which can be realistically expected to be done.

NOTE TO WRITER: State installation's policy on extent of handyman jobs expected of UPH occupants and list of typical jobs and supplies/tools provided

NOTE TO WRITER: The following regulations apply to Housing Operations. Incorporate as appropriate:

Regulations:

AR 210-6	Furniture and Household Equipment Support for Family Housing and Bachelor Housing
AR 210-11	Billeting Operations
AR 210-12	Establishment of Rental Rates for Quarters Furnished Federal Employees
AR 210-15	Activation, Inactivation or Change in Status of Installations
AR 210-17	Inactivation of Installation
AR 210-50	Housing Management
AR 210-51	Army Housing Referral Services Program
AR 215-5	Nonappropriated Funds Accounting Policy and Reporting Procedures

DA Pam 710-2-1 Using Unit Supply System, Manual Procedures

C.5.15.2 Family Housing Administration and Operations:

NOTE TO WRITER: Describe administrative procedures for family housing operations; include discontinuing basic allowance for quarters (BAQ), collection of BAQ and other Army "forms" described in detail either as an SOP or by insertion of applicable instructions with appropriate form numbers, as part of the following paragraphs.

C.7.15.2.1 **Assignments:** The Contractor shall comply with instructions contained in the appropriate chapter of AR 210-50. Pursuant to these instructions, the Contractor shall determine eligibility of the sponsor with dependents (sponsor is defined as any U.S. Soldier, authorized civilian, foreign exchange/liaison officer, and other allied military personnel assigned to the installation under agreement with the United States Army, unmarried Chaplains, and other military and civilian personnel who qualify for family housing) for occupying adequate Government-owned or controlled dwelling units. List of dwelling units is shown at attachment (specify). Approximately (specify) assignments are made (weekly) (monthly).

NOTE TO WRITER:

a. Identify "adequate" quarters at the installation. Include rental units for liaison personnel, and trailer parks, if applicable.

b. Identify "other" military and civilians, i.e., Red Cross, Foster Children, etc..

c. If the installation has more than one (1) assignment/termination office, state particulars associated with each office.

C.7.15.2.1.1 After establishing eligibility of sponsor for on-post Government quarters, the Contractor shall make assignments following the procedures established by the installation. (Writer must reference the local governing publication and state where found). As part of in-processing, the Contractor shall brief the sponsor on such matters as:

- a. Mandatory attendance at the Self-Help Class
- b. Key Control
- c. Installation Beautification Program
- d. Installation Energy Conservation
- e. Maintenance and Repair Procedures

f. Schools, Churches, Recreation

g. Quarters clearance standards and availability of contract cleaning

h. Other items essential to the installation.

C.7.15.2.1.2 Key and essential personnel (those people filling positions which are designated and approved as key and essential for military necessity) shall be given priority assignment as described in chapter 3, para 3-5, AR 210-50.

C.7.15.2.1.3 The Contractor shall provide a nameplate for placement on individual quarters at the time quarters are assigned. Signs shall be comparable in size, color, lettering and material of existing signs. The Contractor shall make rank/grade changes to the signs within one (1) week of notification by service member. Approximately (specify) signs and changes are generated (specify).

C.7.15.2.1.4 Should a sponsor or spouse become locked out of quarters, the Contractor shall first verify quarters assignment and proof of identification then proceed to quarters and unlock with control key. This action shall be accomplished within a designated time from notification by occupant. If the occurrence is after duty hours, refer to installation's SOP on key control and availability. (Writer will state where SOP is found).

C.7.15.2.1.5 Waiting lists shall be established and kept current for each bedroom requirement and grade category as follows:

- a. General and Flag Officer
- b. Senior Grade Officer
- c. Field Grade Officer
- d. Company Grade and Warrant Officers
- e. Enlisted Personnel E-9 through E-4
- f. Substandard Housing

NOTE TO WRITER: The grade of the sponsor and bedroom requirement will determine the waiting list on which the name is placed. However, the sponsor must report for duty (sign in) at the gaining installation before being entered on a waiting list or be assigned quarters.

C.7.15.2.1.5.1 The Contractor shall keep waiting lists current, publish at least once each 30 days, and display in a

public area of the housing office. Dates of eligibility shall be placed opposite the respective name.

C.7.15.2.1.5.2 When there exists a wide difference in type, style, and age of quarters, the Contractor shall establish and maintain other subcategories of waiting lists as determined by local policy.

***NOTE TO WRITER:** Refer to AR 210-50 to assist in identifying and defining housing subcategories for additional waiting lists.*

C.7.15.2.1.5.3 The Contractor shall establish a "freeze zone" of the top 10 percent on each housing waiting list. The zone shall not be altered except for key and essential personnel who will be placed at the top of the waiting list or immediately below other key and essential personnel. Sponsors who have been offered or have accepted quarters will not be displaced.

***NOTE TO WRITER:** Refer to installation policy (state where policy is found) and the regulation for guidance as to placing key and essential personnel, or other "exceptions" on the waiting list in a priority situation. Functional Area Chief's Staff (FACS) is responsible for "exceptions to policy" actions. The Contractor shall only follow instructions from the Contracting Officer as to placement on appropriate list.*

C.7.15.2.1.5.4 The Contractor shall maintain a waiting list for inadequate, excess and substandard housing. Assignments shall be made the same as for adequate housing. (Writer shall add guidance appropriate with installation policy).

C.7.15.2.1.6 Special Programs. (Writer will state installation's policy for the following:

- a. Home purchase program
- b. Retention of quarters under homebase/advanced assignment program.

C.7.15.2.2 Terminations: The Contractor shall terminate quarters of sponsors when the installation ceases to be the permanent duty station; when dependents no longer reside with the sponsor; when leased quarters are no longer surplus, when requested by sponsor occupying adequate quarters or substandard housing; and upon retirement or separation of sponsor. The Contractor shall be directed by the Contracting Officer when termination is at the Installation Commander's discretion. Approximately (specify) terminations occur (specify).

C.7.15.2.3 Inspections: The Contractor shall conduct

quarters inspections of all Government-owned and controlled housing IAW installation policy, AR 210-50 and AR 210-11. The Contractor shall also inspect dwelling units (houses, apartments, trailers, etc.) which are offered as off-post referrals. These inspections will follow the guidance of the FAC, comply with HUD Fair Housing Law, and installation policy. (Writer will state where these references are found.) Average number of inspections performed is (specify).

C.7.15.2.3.1 The Contractor shall conduct an assignment inspection with each new occupant; inventory and inspect all property listed on DA Form 2062 (Hand Receipt) and local form(s), and record, on appropriate form, deficiencies observed. (Writer will refer to installation requirements and standards as to specific deficiencies). Advise occupant of responsibility and procedure for notifying the Contractor should defect be discovered after check in.

C.7.15.2.3.2 The Contractor shall report circumstance of repair to dwelling units or of unhealthful/hazardous conditions, to the Contracting Officer as expeditiously as possible after discovery but not later than close of business the same day.

C.7.15.2.3.3 Pretermination inspections shall be scheduled 30 to 60 days in advance of termination. Inspection shall be conducted jointly by the Contractor, the occupant, and a member of the FACS. Discrepancies, and/or maintenance and repair will be noted on appropriate form for correction prior to final termination inspection, IAW installation policy.

C.7.15.2.3.4 The Contractor shall insure that the occupant schedules a final clearance inspection a minimum of 10 days prior to vacating quarters. This inspection shall be conducted jointly by the occupant, the Contractor and a representative of FACS. Procedure used shall be those established by the FACS. Should the occupant fail the final inspection, appropriate action shall be initiated by the Contractor according to the direction of the Contracting Officer. Assessment for damages will be IAW the installation SOP.

C.7.15.2.3.5 The Contractor shall physically inspect smoke detectors during check-in and final inspections and certify that detectors are in place and in working condition. Smoke detectors shall also be inspected during any visit to the dwelling units. The Contractor shall replace batteries, or should repair or full replacement be necessary, initiate service calls to the DEH Work Reception.

C.7.15.2.3.6 The Contractor shall conduct lawn inspections of family quarters in connection with the installation beautification program. Administrative action pursuant to the inspection will be done according to the installation's policy.

(Writer will state where policy is found.)

C.7.15.2.4 Self-Help Program: The Contractor shall establish, maintain and staff a self-help center located at (specify) (IAW AR 420-22). Hours of operation shall be (specify) until (specify), on (specify days of the week). A Contractor employee, proficient in handyman skills, shall be available each operational day to assist those authorized to use the self-help program.

NOTE TO WRITER: If more than one self-help Center is available a separate paragraph must be provided giving exact particulars as above.

C.7.15.2.4.1 The Contractor shall conduct self-help training classes (specify) times a (state frequency, time and locations). The Contractor shall provide instructor(s) in concert with instructor(s) provided by the FACS. Records of attendance or non-attendance of sponsor scheduled for training shall be maintained.

C.7.15.2.4.2 The Contractor shall prepare requisitions for Government-furnished supplies, tools, equipment, and receive same IAW instructions from the Contracting Officer. The Contractor shall maintain a stock level of the most commonly used items.

NOTE TO WRITER: Specify requisition procedure, complete with administrative chain for processing, workload data statistics for "most used" items, and regulatory stock level in appropriate paragraphs.

C.7.15.2.7.3 The Contractor shall establish an accountability system for Government-furnished nonexpendable items. This system shall specifically include the return of "loan" items upon departure of the sponsor from the installation. In the event returned items are unserviceable or inoperable, and the cause is user negligence or misuse, the Contractor shall notify the Contracting Officer within (specify) and initiate pecuniary proceedings against the service member.

C.7.15.3 Unaccompanied Personnel Housing (UPH): The Contractor shall operate the billeting functions which encompasses adequate housing for:

a. Permanent party (PP) and temporary duty (TDY) accommodations for eligible military and DOD civilian personnel.

b. Guest house (GH) accommodations of short duration for the soldier and families arriving and departing incident to permanent change of station, and other authorized visitors. (Refer to AR 210-11 which establishes eligibility and

authorization for housing.)

NOTE TO WRITER: Writer should attach the installations's UPH SOP or state where found.

C.7.15.3.1 The Contractor shall make assignments and terminations, prepare and process statements of non-availability (SNA) for quarters and mess, discontinuance of basic allowance for quarters (BAQ), and be held accountable for funds as described below.

C.7.15.3.1.1 Should quarters or guest facilities become excess to the installation's need, the Contractor shall advise the Contracting Officer within two (2) working days of occurrence.

C.7.15.3.2 During normal duty hours, the Contractor shall initiate work orders through the DEH work reception for maintenance and repair of "appropriated fund" property (AFP) and "non-appropriated fund" property. Emergencies shall be reported within (specify) minutes to the DEH work reception. For emergency-type service occurring during non-duty hours, the Contractor shall follow the installation policy.

NOTE TO WRITER: Writer should state emergency work policy or indicate where this information is available.

C.7.15.3.2.1 The Contractor shall perform maintenance and repair on "non-appropriated fund" (NAF) property as identified at attachment (specify).

***NOTE TO WRITER:** Explain in detail the Installation's maintenance and repair requirement for NAF property.*

C.7.15.3.3 The Contractor shall have a representative on the Installation Billeting Fund Council. This person shall be knowledgeable of non-appropriated monies received and spent in the course of billeting operation.

C.7.15.3.4 The Contractor shall operate a 24-hour a day, seven (7) day a week service desk for taking reservations, assigning and terminating rooms, and scheduling inspections. The Contractor shall provide sufficient personnel during peak work periods so that no customer waits longer than 15 minutes for processing. Workload figures are available at attachment (specify).

C.7.15.3.4.1 The Contractor shall brief customers of all facility types and on the following items:

- a. Entitlements
- b. Availability of Messes, Post Exchanges, Recreation facilities
- c. Service charges and method of payment
- d. Check-cashing procedures
- e. Occupant responsibility and accountability of property
- f. Maintenance procedures
- g. Visitation policy
- h. Self-help responsibility
- i. Message service
- j. Location maps
- k. Information brochures
- l. Television and telephone service
- m. Vending Machines
- n. Other

***NOTE TO WRITER:** Data for the above information will be provided to the Contractor by the Contracting Officer.*

C.7.15.3.5 Lock-Out Source: Same as described for family housing in C.7.15.2.1.4.

C.7.15.3.6 The Contractor shall maintain bulletin boards containing current "official" and "unofficial" information. This material shall be received from the FACS and through regular on-post distribution channels.

C.7.15.3.7 The Contractor shall update the occupant information brochure every (specify) months. Should no brochure exist, the Contractor shall create a means by which to disseminate installation and community services information.

C.7.15.3.8 The Contractor shall establish (or maintain the existing) reservation system for all categories of housing. The Contractor shall receive requests for reservations by phone, in writing, or in person, and complete necessary installation form(s) for individuals, or block reservations if sanctioned by the installation. Confirmation numbers shall be assigned to each action, whether or not quarters are available. Unclaimed reservations shall be so annotated. If availability cannot be determined at time of request, the Contractor shall follow installation's policy for procedure shown at Attachment (specify). A copy of all transactions shall be retained, including "no shows", for use of reporting requirements, and held for one (1) full year.

C.7.15.3.8.1 The Contractor shall be the liaison for point of contact between billeting and:

- a. Conferences and schools
- b. Installation Protocol Officers for DVQ billeting requirements
- c. Foreign Liaison officers

C.7.15.3.8.2 The Contractor shall provide billeting on a space-available basis to customers not entitled to a confirmed reservation.

***NOTE TO WRITER:** Specify installation procedure for "space available" action.*

C.7.15.3.9 Unaccompanied Permanent Party (PP) Personnel: The Contractor shall operate housing for permanently assigned Active Component (AC) personnel and Reserve Component (RC) personnel IAW AR 210-11 and installation policy.

C.7.15.3.9.1 The Contractor shall inspect housing units and facilities quarterly for:

a. Condition and usage IAW established procedure and policy found at attachment (specify).

b. Potential reallocation

c. Health, welfare and safety conditions

d. Smoke Detector

C.7.15.3.9.1.1 Findings and recommendations shall be reported to the Contracting Officer.

NOTE TO WRITER: Writer should define the time restriction and method of measuring the Contractor's inspections; i.e., unsafe or unhealthy conditions must be reported the same day of discovery, while reallocation is effected by unit integrity or "between occupant" moves.

C.7.15.3.9.2 The Contractor shall provide custodial service in common use areas and housekeeping services within individual personal living areas. Standard for cleaning and exclusions are contained in attachment (specify).

NOTE TO WRITER: "Standard" must be specified for bidding purposes. State what the installations will accept.

C.7.15.3.9.2.1 The Contractor shall establish an (or continue the existing) auditable system for collecting Government-established service fees for housekeeping (maid) service.

C.7.15.3.9.3 Assignment: The Contractor shall assign quarters to eligible military and DOD civilian personnel to meet DA maximum utilization goal of 95 percent.

C.7.15.3.9.3.1 Waiting Lists: The Contractor shall maintain and prominently post at the billeting office, waiting lists for senior officer quarters (SOQ), officer quarters (OQ), and senior enlisted quarters (SEQ). Other categories may be established, such as: units larger than the minimum requirements, Foreign Military Trainees (FMT), Allied Officer, etc. Positions on the list shall be determined by priority as established in AR 210-11. Service members must have signed in at the duty station before applying for quarters.

C.7.15.3.9.3.2 The Contractor shall establish a "freeze zone" of the top 10 percent of each waiting list. This zone shall not be altered.

C.7.15.3.9.4 The Contractor shall prepare and process statements of non-availability (SNA) for quarters.

C.7.15.3.9.5 The Contractor shall provide a linen exchange service at a central issue and collection point. Operating hours, days, location, and any other installation requirements shall be adhered to and published for public information. Exchange service hours are (specify).

C.7.15.3.9.6 Terminations: The Contractor shall terminate assigned quarters IAW AR 210-11. After successful clearance of quarters the Contractor shall prepare termination orders following processing procedures established by the installation. See attachment (specify) for procedures and clearance checklist.

C.7.15.3.10 Temporary Duty (TDY) Quarters and Guest Houses (GH): The Contractor shall operate "hotel-motel type" visitors quarters and GH facilities for which a cash charge is levied. The Contractor shall operate each category of transient quarters separately. Quarters type and use are identified as:

a. Bachelor officer quarters (BOQ), bachelor enlisted quarters (BEQ), and distinguished visitors quarters (DVQ) used to support TDY military and civilian personnel.

b. Guest houses (GH) provide short-term accommodation for accompanied and unaccompanied military personnel, and DOD civilians arriving or departing the installation incident to PCS.

C.7.15.3.10.1 The Contractor shall maximize utilization of visiting quarters. SNAs, if appropriate shall be prepared and processed IAW AR 210-11 para 3-17 and installation policy.

C.7.15.3.10.2 Distinguished visitor quarters (DVQ) shall be operated by the Contractor to house visitors in grades 0-6 and above, and equivalent grade DOD civilians, as shown in comparison table at Attachment (specify), and following installations policy and AR 210-11.

C.7.15.3.10.3 The Contractor shall make reservations according to installation policy. Assignments shall be made to both adequate and substandard quarters. The Contractor shall follow the order of assignment priority, and space available assignment, as outlined in AR 210-11.

NOTE TO WRITER: Writer may elect to incorporate details of

installation's policy on authorization and assignment of quarters, or state where found.

C.7.15.3.10.4 The Contractor shall operate guest houses IAW AR 210-11 and installation policy. These facilities shall be available to military personnel, with or without families, and eligible DOD civilians (eligible as defined in AR 210-11) PCSing in or out of the installation. Priority and authority to occupy guest houses shall be as established in AR 210-11. The Contractor shall further make reservations, strictly following the duration of occupancy policy, and assess charges IAW AR 210-11 and installation policy.

NOTE TO WRITER: *Writer should either state governing policy or indicate where found.*

C.7.15.3.11 The Contractor shall operate Government leased housing IAW AR 210- 11.

NOTE TO WRITER: *When leased housing is part of the billeting function, the writer must explain the contract requirement.*

C.7.15.3.12 The Contractor shall be accountable for monies collected and disbursed in connection with billeting operations.

C.7.15.3.12.1 In conjunction with funds, the Contractor shall:

a. Establish an accounting system to bill and collect for charges established by Government (room rates for visitor quarters, maid service, lost keys, property damage for which the occupant bears responsibility, etc.). This accounting system shall be so developed as to provide an audit trail for all transactions.

b. Determine method of payment, whether cash only, credit card, or check. (NOTE: If by check, state any restrictions such as for "an outside CONUS bank.")

c. Deposit collected monies in a financial institution designated by the Contracting Officer. Insure security of personnel and monies during transit to and from the financial facility.

d. Purchase supply items with non-appropriated funds. The Contractor shall retain receipts of purchasing for forwarding to the Central Accounting Office (CAO) on a daily basis (or state frequency).

NOTE TO WRITER: *The Contractor's purchase authority and*

responsibility must be spelled out.

C.7.15.3.13 The Contractor shall provide in-room and common use area housekeeping services for visitor quarters and guest houses. The Contractor's schedule of tasks and hours of performance shall be submitted to the Contracting Officer (specify) days prior to contract start date. List of areas to be cleaned are shown at attachment (specify).

C.7.15.3.13.1 The Contractor's personnel shall present a neat appearance and be easily recognized as Contractor personnel. This may be done by wearing distinctive clothing bearing the company name or by badges containing company and employee names.

NOTE TO WRITER: *State any specific requirements for Contractor-provided uniforms or badges; cleanliness standards for personnel and their clothing. If professional certifications are required by the installation or by law, the Contractor must obtain and keep current such certifications for the employees.*

C.7.15.3.13.2 The Contractor's employees shall secure facilities and equipment at close of each workday.

C.7.15.4 Furnishings: IAW AR 210-6, AR 210-11, AR 210-50 and supplements thereto, the Contractor shall maintain, requisition, store, issue, transport, dispose of, and account for furnishings and furniture for all housing needs: family, unaccompanied, visiting quarters, GH, troop barracks, Reserve support, and be responsible for physical security of all warehouse facilities IAW TM 743- 200 and 743-200-1. Current inventory listing is shown at attachment (specify). The Contractor shall employ people proficient in the operation of material handling equipment and vehicles up to a 2-1/2 ton truck. Required testing and licensing shall be coordinated through the FACS. The Contractor shall submit an operating plan for this function to the Contracting Officer for review (specify) days prior to contract start date.

C.7.15.4.1 The Contractor shall identify and recommend furnishings, equipment and furniture for use in quarters IAW the applicable Table of Distribution and Allowances (TDA). The Contractor shall issue, and repair furniture, and recommend a means of replacement for unserviceable items.

C.7.15.4.2 The Contractor shall be accountable for appropriated fund (AFP) and non-appropriated fund (NAF) properties. This property shall not be interspersed, but stored separately. Records shall be kept on each category, APF and NAF, with accountability and control for each to include:

a. Fixed asset cards (DA Form 4078) for nonexpendable NAF property, IAW AR 215-5 (Morale, Welfare and Recreation Update).

b. Hand receipts (DA Form 2062) for AFP and NAF property.

c. Records of receipt and issue of expendable items.

C.7.15.4.3 Requests for issue or turn-in shall be logged as to date and time received. Delivery or pick-up shall be made within (specify) day(s) of request.

C.7.15.4.4 Items received at the warehouse shall be off-loaded within (specify) hour(s) of arrival.

C.7.15.4.5 The Contractor shall dispose of excess or unserviceable property IAW installation policy. Procedure will be provided by FACS.

NOTE TO WRITER: Writer will state installation policy.

C.7.15.4.6 Turn-in of seasonal or serviceable excess property shall be delivered to (state location). Repairable items shall be delivered to (state location) (state frequency) and collected upon completed repair, or change of season, as appropriate.

NOTE TO WRITER: Writer should add guidance pertinent to the installation; and time factors of pick-up and delivery.

C.7.15.4.7 Inventories: The Contractor shall inventory and submit findings to the Contracting Officer for all warehoused items IAW DA Pam 710-2-1, AR 210-6 and AR 215-5. Appropriated and non-appropriated property shall be accounted for separately.

C.7.15.4.7.1 An annual inventory of NAF-owned fixed assets (IAW AR 215-5) shall be conducted by the Contractor and one Government non-interested party appointed by the Contracting Officer. The Contracting Officer will establish the dates, and times, and schedule the inventories. Findings shall be reported to the Contracting Officer within (specify) following the inventories. The Contracting Officer will direct any follow-up action resulting from the findings.

C.7.15.4.8 Records of inventories, condition, and utilization of furnishings shall be maintained by the Contractor and held for (specify) month(s)/year(s), then surrendered to the Contracting Officer.

C.7.15.4.9 The Contractor shall coordinate linen service with the installation laundry, to deliver and collect linen at the central issue point (specify).

NOTE TO WRITER: Writer may include authorization for troop issue, and any particulars associated with troops.

C.7.15.4.10 Supply: The Contractor shall maintain a stock level of supplies needed in the housing operation based on the installations known requirement, as shown at attachment (specify).

NOTE TO WRITER: List actual items used, known frequency of replacement, and identify floater level. Acquisition or requisition procedures must be stated.

C.7.15.4.10.1 Quantity of supplies listed by item and used per month shall be submitted to the Contracting Officer (state frequency).

C.7.15.5 Off-Post Housing Referral: The Contractor shall provide a full range of housing referral services (HRS) to include suboffices located at (specify), and shall be operated IAW AR 210-51 and local SOP as shown in attachment (specify). This service shall be personalized, conveniently available, and shall assist personnel moving into the area to locate suitable off-post housing. Workload data is provided at attachment (specify).

C.7.15.5.1 Incoming personnel requesting off-post referral service shall be interviewed to determine off-post housing requirements. Information on each applicant shall be recorded on DD Forms 1668 and 1670 and (local form) if appropriate. At the interview, incoming personnel shall be placed on a housing waiting list as appropriate to the individual's requirements.

C.7.15.5.2 The Contractor shall act as liaison with the local real estate community; and shall prepare and maintain listings of off-

post houses, apartment complexes, trailers, or trailer spaces available for rent or sale. The listing shall include a complete description, price, location, and point of contact.

***NOTE TO WRITER:** Writer should explain that either the Contractor or the owner/manager of each rental unit available for listing shall complete DD Form 1667 and affix signature to authenticate willingness to sell or rent on a non-discriminatory basis. The Contractor shall maintain the completed DD 1667's for the duration of each listing. Current listings will be provided by the Contracting Officer upon contract start.*

C.7.15.5.3 The Contractor shall verify vacancy listing (state frequency) for accuracy, availability, price and rental and sales policy prior to releasing information to person seeking housing.

C.7.15.5.4 The Contractor shall counsel each applicant regarding: the restrictive sanction list, if any, complaint procedures: and applicant's responsibilities to prospective landlords. Counseling shall include general practices of leasing, deposits, and responsibilities of tenants and owner/manager. The Contractor shall provide the applicant with maps and directions to the chosen listings, and advise of possible future listings with HRS. Each applicant shall be given a handout IAW AR 210-51 as part of the in-processing briefing. The Contractor shall instruct the departing service member to immediately contact HRS at the next duty station.

***NOTE TO WRITER:** Grievance procedures developed by the Functional Area Chief must be provided the Contractor at start of contract.*

C.7.15.5.5 The Contractor shall forward complaints of discrimination and landlord/tenant problems to the FACS for investigation and resolution.

C.7.15.5.6 The Contractor shall have a procedure to delete all information on out-processing personnel from the active HRS files and place in inactive files. After owner/manager verification of current information, return vacant dwelling to the appropriate list for future referrals.

C.7.15.6 **Reports:** The Contractor shall develop and maintain a data system to provide accurate and complete information of all housing operations. Accounting system

and reporting requirements must be the minimum required to meet the need for financial, utilization, assets, and any other reporting. This system shall be subject to review and approval of the Contracting Officer.

C.7.15.6.1 The Contractor shall prepare periodic reports IAW AR 210-50 to Installation, MACOM and higher command. Collect and maintain the required data for submission to the Contracting Officer at least five (5) working days prior to established report date. (The Contracting Officer will provide necessary forms and set due dates based on distribution of individual report.) List of required reports is shown at attachment (specify).

C.7.15.6.2 Information which is only available through the Contractor shall be reported by the Contractor to the Contracting Officer the same day (or same hour depending on the nature) information is learned.

C.7.15.6.3 The Contractor shall report personal articles found by the Contractor's personnel and turn in such articles to the Provost Marshall the same day found.

C.7.15.7 Contractor Use of Housing Automated Systems:

***NOTE TO WRITER:** Housing automated systems, to include the Housing Operations Management System, were designed to aid installation housing managers to process soldiers for housing as well as to collect, report, and use information for internal management operations. These systems support the day-to-day management of housing at the installation. They also contribute to the planning, programming, budgeting, and execution of the housing mission. While housing management functions remain inherently governmental, the contractor must manage the contractual workforce performing selected housing management activities. These two management activities, Government and contractor, are not mutually exclusive. It is not consistent with Army policy or the intent of commercial activities competition to impose a specific management style on the contractor. Mandating use of any housing automated system is considered imposition of a specific management style.*

a. Housing automated systems, to include HOMES, will not be imposed on contractors as mandatory for use by the contractor.

b. Contractors should be required to provide feeder data to the Government to allow update of the Government's information data base. This must include data for the installation's command data base and local area network and data necessary for reports to higher headquarters. These data

requirements must be clearly specified in the PWS.

c. Contractors may, at their own option, be allowed to use HOMES or other housing automated systems.

(1) Care should be taken to ensure that contractors do not use any system shortfalls as excuse for marginal or inadequate performance. Use of these systems should be at risk to the contractor not at risk to the Government.

(2) A requirement for the contractor to identify system shortfalls and recommendations for improvements should be identified within the PWS. This methodology offers direct benefit to both the contractor (monetarily) and the Government (service). It will also provide an upgraded functional system.

d. Funding and arrangements for training in the use of housing automated systems will be a contractor responsibility. Where contracts already in place impart a differing requirement, the terms of the contract will prevail.

e. PWS will not commit the Government to provision of training in the use of housing automated systems. Training provided to Government employees may be offered to the contractor on a space available basis with cost reimbursement to the Government. (Ref: AR 210-50)

C.7.15.8 Custodial Services: (See C.7.2)

C.7.15.9 Pest Control: (See C.7.3)

C.7.15.10 Refuse Collection and Disposal: (See C.7.4)

C.7.15.11 Maintenance and Repair and Minor Construction, Buildings and Structures: (See C.7.11)

SECTION D

PACKAGING AND MARKING

NOTE TO WRITER: The PWS writer should include any packaging, packing, preservation and marking requirements in this section. If there are none, then omit. These requirements are applicable only if the contract requires the

Contractor to deliver supplies to the Government. This section would apply if the Contractor provides operation of self-help and troop support supply functions. (Ref. FAR 10.004 (e))

SECTION E

INSPECTION AND ACCEPTANCE

1. **Information:** This section is prepared by the PWS writer and the Contracting Officer. The section contains a description of how the Government will monitor the Contractor's performance and the general acceptance standards expected from the Contractor. The actual inspection procedures developed are subject to unilateral revision by the Government at any time and are not a part of the contract.

***NOTE TO WRITER:** FAR Part 46 prescribes policies and procedures to assure that supplies and services procured by the Government conform to the quality and quantity set forth in the contract. The Government determines the type and extent of Government quality assurance based upon the particular acquisition. Contractors are responsible for carrying out their obligations as set forth in the contract terms and conditions, for controlling product quality, and for offering to the Government only those supplies and services conforming to contract requirements. A surveillance plan must be provided to potential Contractors as information only, and not as part of the contract.*

The key to assuring quality with minimal Government inspections is to ensure that a Contractor provides good manageable quality control plan or program. Comparing results of random sampling of specified services against Contractor's quality control checklists will identify areas where a Contractor's quality control plan or program may need improvement.

2. **Instructions:**

a. **Inspection of Services - Fixed Price:** The Contracting Officer should insert FAR clause 52.246-4, Inspection of Services - Fixed-price, for all solicitations when a fixed price contract is contemplated. (Ref: FAR 46.304).

b. **Quality Assurance (QA) and Surveillance Plans:**

(1) When the Government purchases services, there must be some means provided to attest to the value received for moneys spent. To do this, the Government must be able to confirm that the quantity and the quality of services received conform to contract requirements. The recipient of the contracted services is responsible for developing and implementing procedures that assure that the Government is getting the services that were contracted. These procedures are

called quality assurance (QA). Contractors, on the other hand, are responsible for providing quality control (QC). QC controls the service-producing processes and ensures that the desired level of output quality is maintained. The PWS writer and Contracting Officer must ensure no contract limits the Government's right to inspect.

(2) Quality assurance surveillance enables the Government to draw conclusions about a Contractor's performance and to document those conclusions. The type of conclusions that can be drawn from surveillance depends on the evaluation method used. Conclusions can range from cursory to exact. The closer to exact the conclusions, the easier it is to convert them into corrective actions.

(3) The Government should monitor a Contractor's performance using QA procedures established for the contract. However, the Government may reserve the right to utilize other methods as necessary to assure Contractor compliance with all terms and conditions of the contract. The Contractor should be cautioned that additional costs to the Government to reinspect work caused by unsatisfactory work or nonperformance by the Contractor may be charged to the Contractor. (Ref. FAR 52.246-4). The Performance Requirements Summary (PRS), DA FORM 5473-F, is an important part of quality assurance and should be identified in SECTION E of the solicitation and listed in SECTION J as a technical exhibit. (See para. three (3) below.) The PRS table is also included as part of the QA Surveillance Plan.

***NOTE TO WRITER:** A Quality Assurance Surveillance Plan must not be incorporated as part of a contract. Accordingly, it is identified in SECTION J and attached as information only with the solicitation, and a statement along the following lines must be inserted on the front cover:*

"This plan is provided for information purposes only. This Quality Assurance Surveillance Plan is not part of the Request for Proposal (or Invitation for Bids) nor will it be made part of any resulting contract. The Government has

the right to change or modify inspection methods at its discretion."

The release of surveillance methods to potential Contractors depends upon the functions being monitored and the installation personnel and practices. The issue should be resolved by functional and contracting people, preferably at the local level. The advantage of identifying the type of surveillance methods tends to promote good Government-Contractor relations, forces the Government to determine how the contract will be monitored, and gives the Contractor a better understanding of the performance expected of him. Moreover, the surveillance methods are not binding on the Government.

c. General Acceptance Standards: All Government facilities, to include all Government property assigned to or maintained by the Contractor should be clean, secure, and safe to operate. All Government equipment must be maintained to ensure that it operates according to manufacturer's instructions. Equipment shall not be operated without protective shields or devices in place. All replacement items must meet applicable federal, state, and local codes or regulations. Equipment should be operated in the most effective, efficient, and economical manner possible.

d. Inspection/Work Verification: All work should be inspected by the Contracting Officer to ensure that the work is being accomplished according to the contract.

e. Reductions for Unsatisfactory or Nonperformance Work: An amount equal to the value of the unsatisfactory or nonperformed work, as determined by the Contracting Officer should be deducted from any payment due to the Contractor. (Ref. para 4-4, DA Pam 715-15). If the Contractor disagrees with the Contracting Officer's reduction, then the disagreement shall be subject to FAR Subpart 33.2, DFARS 233.2, and AFARS 33.2, Disputes and Appeals.

NOTE TO WRITER: *The following clauses are the Contracting Officer's responsibility. Recommend if desired. See FAR 52.246-1 and DFARS 252.246-1 through end to develop any recommended supplements to inspection clauses.*

3. Inspection: All work will be inspected by the Contracting Officer as specified herein to ensure that work is accomplished as approved by the Contracting Officer.

4. Reductions for Unsatisfactory or Nonperformed Work: An amount equal to the value of the unsatisfactory or nonperformed work, as determined by the Contracting Officer IAW para. five (5) below, will be deducted from any payment due the Contractor. In the event the Contractor disagrees with the Contracting Officer as to any reduction, such disagreement shall be subject to the Contract clause entitled "Disputes" (SECTION I). In general, deductions for items or services inspected using random sampling will be determined IAW the procedures outlined in this SECTION E. (See example).

Deductions for items or services inspected by other methods will be determined IAW the "Inspection of Services Fixed-Price" clause (SECTION I). (See example.)

5. Payment Analysis: Payment analysis is used to determine deductions or reductions of the Bid Schedule Item which corresponds to services found unsatisfactory regardless of whether the Government allows the service to be reperformed. Payment analysis is broken down into two (2) separate categories: Deduction for Documented Defects and Deduction Projection.

6. Deduction for Documented Defects: Each documented defect represents a loss in value to the Government and increases the administrative burden. The administrative burden may include: reinspection time, vehicle time, functional personnel (DEH, Budget, Procurement), performing additional records and reports. DOD's historical records have indicated that 8% to 10% of the contract dollar is used for contract administration. The cost of reduced value can be calculated as a percentage or a true dollar amount. The percentages used for determining administration cost in the four concepts listed below are for illustration purposes only, (percentages may actually be higher or lower depending on the installation's geographical layout or the contract requirements).

(1) Work found unsatisfactory and not reperformed by anyone, or work not performed at all: 10% of service value for administrative costs plus cost of service from the Bid Schedule (See example).

(2) Work found unsatisfactory and reperformed by the Contractor: 10% of service value for administrative costs.

(3) Work found unsatisfactory and reperformed by the Government: 20% of service value for administrative

costs plus cost of service (Government Cost to Reperform).

(4) Work found unsatisfactory and reperformed by another Contractor: 20% of service value for administrative costs plus the contract price for the additional contractor.

NOTE TO WRITER: *It is very important that deduction methods are illustrated in SECTION E which will become part of the contract once the contract has been awarded.*

EXAMPLE

Work found unsatisfactory and not reperformed by anyone, or work not performed at all: 10% of service value for administrative costs plus cost of service (from Bid Schedule).

Analysis for Lump Sum

Requirement = Plant New Trees
Surveillance = 100% Inspection
Bid Cost = \$10,000.00/month (Lump Sum)
Population = 50 Trees (Units)
Defects = 10 Trees (Units)

1. Cost of Service = $\$10,000.00 / 50 \text{ units} = \200.00 per average unit
2. Service Value = Number of Defects x Cost of Service
 $= 10 \times \$200.00 = \$2,000.00$
3. Admin. Cost = Administrative Deduction % x Service Value
 $= 10\% \times \$2,000.00 = \200.00
4. Deduction = Administrative Cost + Service Value
 $= \$200.00 + \$2,000.00$
 $= \$2,200.00$

Analysis for Line Item Cost

Requirement = Plant New Trees
Surveillance = 100% Inspection
Bid Cost = \$200.00/Unit
Population = 50 Trees (Units)
Defects = 10 Trees (Units)

1. Cost of Service = \$200.00 Per Unit
2. Service Value = Number of Defects x Cost of Service
 $= 10 \times \$200.00 = \$2,000.00$
3. Admin. Cost = Administrative Deduction % x Service Value
 $= 10\% \times \$2,000.00 = \200.00
4. Deduction = Administrative Cost + Service Value
 $= \$200.00 + \$2,000.00$
 $= \$2,200.00$

or

1 Step Analysis for Line Item Costs

Administrative Deduction % x Service Value + Defects x Cost of Service
 $= (10\% \times \$2,000.00) + (10 \times \$200.00)$
 $= \$200.00 + \$2,000.00$
Deduct = \$2,200.00

7. **Performance Requirements Summary Table Example:** This paragraph describes the content of a Performance Requirements Summary Table. This table must be identified in SECTION E of the solicitation and listed as a technical exhibit in SECTION J. It is also included as part of the Quality Assurance Surveillance Plan. A Performance Requirements Summary Table should be completed as follows:

a. **Service Requirement (Column 1):** This column should contain a brief summary of each service requirement either identified as line or subline cost items or other services within the line or subline cost items. All service requirements to be monitored must be included. When deciding how to express the requirements, consideration should be given to surveillance methods to be used.

b. **Contract Paragraph Number (Column 2):** This column should list the paragraph in the PWS which specifies the service requirement.

c. **Standard (Column 3):** This column must describe the standard to be met. It should be written in objective, measurable terms. References to standards contained in referenced documents also may be used.

d. **Maximum Allowable Degree of Deviation from Requirement (AQL) (Column 4):** This column should show the minimum acceptable quality level (AQL). Technically, it is a

modification of the standard. It should be stated as either a defect rate (percentage) or an absolute number per time period (month). If payment analysis is to be used, the size of the population service (or individual jobs) is to be performed during a specified time period (normally 1 month).

e. Method of Surveillance (Column 5): This column should show the method of surveillance anticipated for the service requirement. The following methods are available and more than one may be used for each service requirement: Random Sampling, Planned Sampling, 100-Percent Inspection, Validated Complaints, and Unscheduled Inspection. The Government is not restricted to using the methods chosen and shown in column 5.

NOTE TO WRITER: The following are examples of Performance Requirement Summary tables. The installation must design its own method as to how the reductions will be made. The column could be left blank for solicitation purposes with the Contractor required to fill in for negotiation purposes. Column 2 should reflect each paragraph applicable to that service as this will provide a good cross reference. (Use DA Form 5473-R, Nov 85 if available.)

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Develop & maintain work plans & schedules and reports.	C.1 C.6.1 C.6.2 C.6.3 C.6.7 C.6.18 C.6.22	Submit weekly & annual schedules. Keep schedules current. Comply with priorities established.	6.5% All defects cured within 1 workday.	100% inspection	
Maintain records, logs, files, & publications.	C.1 C.2g C.4.3 C.5 C.6.4	All documentation & filing accomplished.	6.5% All defects cured within 1 workday.	Conducted in conjunction with surveillance of specific functions.	
Report work exceeding contractor limits of responsibility.	C.1 C.2y H.2	Report not later than close of working day.	10%. All defects cured within 1 workday.	Conducted in conjunction with surveillance of specific functions.	
Maintain Government-furnished supplies.	C.1 C.3 C.6.5	Maintain shop stock. Verify deliveries.	6.5% All defects cured at contract completion or termination.	Random sampling.	
Provide personnel on site to perform all required services	C.1 C.6.6 C.6.9	Comply with minimum manning levels, dress standards, identification, & private vehicle requirements.	6.5% All defects in manning cured within 1 hour. All other defects cured within 2 hours.	Conducted in conjunction with surveillance of specific functions.	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Work Control	C.6.2 C.6.15	Receive, initiate, control, schedule, and perform all work IAW all contract terms and conditions.	6.5% All defects cured within established time frames.	Conducted in conjunction with surveillance of specific functions.	
Establish & maintain quality control program.	C.6.1 C.6.10 C.6.14 C.6.16 C.6.17 C.6.18 C.6.19 C.6.21	Revised plan available at pre-performance conference. Files current. QC insuring. Work accomplished as specified.	6.5% All defects in files cured within 1 hour after discovery.	Conducted in conjunction with surveillance of specific functions.	
Participate in performance evaluation meetings.	C.6.11	Attend meetings Prepare written minutes promptly (if applicable).	6.5% All defects cured within ____.	100% inspection.	
Exercise warranties on Government-furnished equipment.	C.6.20	Comply with manufacturer's specifications. All warranty service performed as applicable.	6.5% All defects cured within 1 workday.	Planned sampling.	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FAM 715-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Account for control & maintain all Government-furnished property.	C.3.5	Property must be maintained to same, or better, condition as received.	6.5% All defects cured at time of completion or termination of contract.	Random sampling. 100% inventory at completion or termination of contract.	
Provide all equipment, supplies or materials not provided by Government.	C.1 C.4	Must meet applicable Federal, State, and local laws, codes, or regulations must be adequate for intended purpose.	6.5% All defects cured within ____.	100% inspection	
Provide contingency plans. Implement plans on notifications.	C.6.7	Plans insure work is accomplished in event contingency occurs.	6.5% Defects in plans corrected IAW direction of Contracting Officer. Plans implemented upon notifications within ____.	100% inspection.	
Meet security clearance requirements.	C.6.8	All required clearances requested and obtained prior to any performance. Clearance is only to degree specified.	0%. No defects. Watchers will be provided, if available, at contractor cost.	100% inspection.	
Comply with contract clauses	Section I of contract	Compliance with section I as applicable to each service requirement.	0%. No defects. Clauses are mandatory unless specified otherwise in the clause.	100% inspection.	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Comply with special contract requirements.	Section II of contract	Compliance with section H of contract as applicable to each service requirement.	6.5% Defects cured within _____.	100% inspection.	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FORM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Provide inspections, preventive maintenance & repair of food service equipment, including utility connections IAW all contract terms and conditions.	C.1 C.7a C.7.1 H.2	Inspection report indicates all deficiencies. Schedules indicate work to be performed in detail including when, where, etc. All equipment meets NFPA standards. No loose bolts, screws, components. No damaged or missing screws, bolts, or components. Equipment in a safe operable condition. Equipment operating as designed.	10%. Lot is number of scheduled maintenance actions per month. All defects cured within _____.	100% inspection. (Monthly)	_____%
Install & remove food service equipment, as required.	C.7.1.8 H.2	No leakage, all doors open easily and have tight fit. Unit level & all assembly bolts tight. Meets NFPA standards utility service connected. Equipment is safe to operate & operates as designed.	6.5% Lot is number of equipment installations & removal per month. All defects cured within _____.	100% Inspection (Monthly) (Secondary method: Validated complaints)	
Respond and provide emergency repair of food service equipment.	C.6.14 C.7.1.2 through 11 Special clause H.2 & H.10.	Response within 1 hour. Will continue until problems are corrected.	6.5% Lot is number of emergency service calls per month. All defects cured within _____.	100% Inspection	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 715-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Respond and provide urgent repair of food service equipment.	C.6.14 Special clause H.2 & H.10	Same as above. Complete work within 48 hours	6.5% Lot is number of urgent calls per month All defects cured within _____.	Random sampling.	
Respond and provide routine repair of food service equipment.	C.6.14 Special clause H.2 & H.10	Same as above. Complete work within 30 days.	10%. Lot is number of routine calls per month. All defects cured within _____.	Random sampling.	

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Basic cleaning	C.1 C.7a C.7.2.1 C.7.2.2 C.7.2.3 H.2	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for basic cleaning each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Clean & supply rest-rooms.	C.6.4 C.7.2.2 C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for restroom cleaning each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Provide special requirements cleaning.	C.7.2.1 C.7.2.2 C.7.2.3 H.2	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for special cleaning each month. All defects cured within _____.	100% Inspection.	_____ %
Perform high dusting.	C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for high dusting each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Perform low dusting.	C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for low dusting each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Clean interior windows.	C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for interior window cleaning each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Clean exterior windows.	C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for exterior window cleaning each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Clean light fixtures.	C.7.2.3	Accomplish per work schedule & achieve specified results.	10%. Lot is number of building units scheduled for light fixture cleaning each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %

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Pest Control Services

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
NOTE: See DOI Pest Control PWS guide to develop the PRS					

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Refuse Collection & Disposal

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 71B-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Scheduled refuse collection	C.1 C.7.4.1 C.7.4.2 C.7.4.10 H.2	Accomplish at scheduled times with clean, empty containers properly positioned & spillage around collection site & enroute removed.	6.5% Lot is number of collection stations scheduled for collection each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Special collections	C.7.4.2	Respond within 24 hours. Provide clean, efficient collection.	No defects. Lot is number of special collections each month.	100% inspection.	
Disposal of resource recovery & recycling material	C.7.4.2.a C.7.4.2.b C.7.4.2.3 (etc.)	Collect recoverable material & maintain separate from refuse.	6.5% Lot is number of disposal stations scheduled for collection each month. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain minimum staffing levels.	C.1 H.2	See AR 420-90 and MS-3 to develop	No defects	Random sampling	_____ %
Inspect & maintain fire alarms	C.3 C.7.5.3	Meets NFPA codes	6.5% All defects cured within _____	Random sampling (QAE inspection subsequent to scheduled Contractor inspections.)	_____ %
Inspect & maintain extinguishers. Replace defective/discharged units.	C.7.5.6 C.7.5.7	Meets NFPA codes	6.5% All defects cured within _____	Random sampling (QAE inspection subsequent to scheduled Contractor inspections.)	_____ %
Inspect buildings, housing units, places of public assembly, hazardous facilities & other areas	C.1 C.7.5.8	All deficiencies noted and reported to DEH IAW time frame work schedules reflect work to be done and date to be done.	6.5% All defects cured within _____	Random sampling (QAE inspection subsequent to scheduled Contractor inspections.)	_____ %

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Conduct inspections of water distribution systems hydrants, control valves sprinklers & pumps. Conduct water-flow tests. Maintain systems & equipment.	C.7.5.4 C.7.5.5	AR 420-90 NFPA Code, 24. All deficiencies noted, work schedules indicate work to be done. Complete work to scheduled time frame(s). Equipment safe and operates as designed.	6.5% All defects cured within _____	Random sampling (QAE observe tests inspections.)	_____%

VII-137

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect, maintain, & repair electrical plants & systems.	C.1 C.7.6.1 H.2	All work performed IAW schedule & results recorded.	6.5% Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%
Inspect, maintain, & repair auxiliary generators.	C.7.6.5	All work performed IAW schedule & results recorded	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%
Inspect, maintain, & repair outdoor lighting.	C.7.6.6	All work performed IAW schedule & results recorded	6.5% Lot is number of schedule inspections per month. All defects cured within _____.	Random sampling.	_____%
Operate equipment, as required.	C.7.6.1	Operators present. All checks made & records maintained.	6.5% Lot is number of required equipment days. All defects cured within _____.	Random sampling.	_____%
Respond and perform emergency repair work satisfactorily	C.6.14 Special clause H-10	Respond within 1 hour & continue to work until deficiencies are corrected.	6.5% Lot is number of emergency calls per month. All defects cured within _____.	100% inspection.	_____%
Perform urgent repair work satisfactorily.	C.6.14 Special clause H-10	Complete work within 48 hours. All deficiencies are corrected.	6.5% Lot is number of urgent calls per month. All defects cured within _____.	Random sampling.	_____%
Perform routine repair work satisfactorily.	C.6.14 Special clause H-10	Complete work within 30 days. All deficiencies are corrected.	10%. Lot is number of routine calls per month. All defects cured within _____.	Random sampling.	_____%

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FORM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Operate boiler plants.	C.1 C.7.7.1 C.7.7.6	Accomplish per proposal and specified output values & reliability rates. Controls adjusted properly, boiler operating properly, water chemistry within specific values	No defects.	100% inspection. (Inspections made daily at randomly selected times.)	
Inspect, maintain, & repair boiler plants.	C.1 C.7.7.1 C.7.7.6.6 Special clauses H.2	Accomplish per proposal IAW schedule and work authorization document. All equipment in good working order. Installation intact. No systems leaks. Replace within established time limits.	6.5% Lot is no. of scheduled inspection per month. All defects cured within _____.	Random sampling. (Inspections subsequent to scheduled Contractor inspections.)	_____ %
Inspect, maintain & repair heating distribution systems.	C.1 C.7.7.1 C.7.7.7 Special clauses H-10 & H-2	Accomplish per proposal IAW schedule and work authorization documents. No system leaks. All pipe insulation intact. Traps and other equipment in good working order.	6.5% Lot is No. of scheduled inspection per month. All defects cured within _____.	Random sampling. (Inspections subsequent to scheduled Contractor inspections.)	_____ %

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Annually over-haul plants & systems.	C.7.7.8	Accomplish per proposal IAW schedule and work authorization document.	6.5% Lot is No. of scheduled inspection month. All defects cured within _____.	100% inspection.	
Inspect, maintain, & repair laundry support equipment.	C.1 C.7.7.9 Special clauses H-10 & H-2	Accomplish per proposal IAW schedule and work authorization documents. All equipment in good working condition.	6.5% Lot is No. of scheduled inspection month. All defects cured within _____.	Random sampling. (Inspection subsequent to scheduled Contractor inspections.)	%
Maintain treatment of boiler water	C.1 C.7.7.12 C.7.7.13	Maintain boiler water analyses test parameters within required ranges.	10% of parameters test values outside of specifications per month per boiler. No one parameter outside of specifications more than three times per month. All defects cured within 24 hours.	Water treatment records examined weekly. Random sampling and analyses of water by independent (or government) laboratory. Annual inspection of equipment for scaling and corrosion.	%
Maintain gas/fuel systems	C.7.7.14	All lines and systems in good working order. No system leaks. All cathodic tests in acceptable range - e.g. monthly, semiannual, and annual.	6.5% All deficiencies found corrected within 30 days lot is no of inspections monthly. No over protection allowed.	Random sampling. Inspection of reports and records monthly.	%

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 715-15; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain treatment of softened water	C.7.7.12 C.7.7.13	Maintain softened water hardness within specified ranges.	6.5% A total of no more than three readings exceeding maximum specified hardness per month. All defects cured within 12 hours.	100% inspection of records monthly, Random water sampling and analyses by independent or Government laboratory.	_____%
Maintain treatment of dealkalized water.	C.7.7.12 C.7.7.13	Maintain dealkalized water alkalinity within ranges shown in boiler water table.	6.5% A total of no more than three readings exceeding maximum specified alkalinity per month. All defects cured within 12 hours.	100% inspection of records each month Random sampling and analysis by independent or Government Laboratory.	_____%
Maintain treatment of condensate water	C.7.7.12 C.7.7.13	Maintain all test parameters within required condensate water ranges shown in boiler water table(s)	6.5% A total of no more than three pH reading, and no more than two hardness and conductivity readings outside of specified range per month. All defects cured within 12 hours (NOTE: The time required to complete corrective actions will vary between installations dependent upon available manpower in the heating/plumbing and other repair shops)	100% inspection of records each month Random sampling and analyses by independent (or Government laboratory.	_____%

VII-141

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FORM 715-15; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain treatment of high temperature hot water boiler water	C.7.7.12 C.7.7.13	Maintain all test parameters within ranges shown in boiler water table(s)	6.5% No specified parameter value outside of specified range more than three times per month. All defects cured within 12 hours.	100% inspection of records monthly Random sampling of hot water by independent (or Government) laboratory.	____%
Maintain treatment of low and medium temperature hot water boiler water.	C.7.7.12 C.7.7.13	Maintain all test parameters within ranges shown in boiler water table(s)	6.5% No specified parameter value outside of specified range more than 3 times per month. All defects cured within 12 hours.	100% inspection of records each month Random sampling of hot water by independent (or Government) laboratory.	____%

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Operate water treatment plant.	C.1 C.7.8.1 C.7.8.2	Specified output values.	No defects.	100% inspection. (Inspections made daily at randomly selected times.)	
Inspect, maintain & repair water treatment plant.	C.1 C.7.8.1 C.7.8.2 Special clause H-10	Accomplished per procedure IAW schedule.	6.5% Lot is _____. All defects cured within _____.	Planned sampling. (Inspection subsequent to scheduled contractor inspections.)	
Inspect, maintain, & repair water distribution system.	C.7.8.3 Special clause H.10	Accomplished per procedure IAW schedule.	6.5% Lot is _____. All defects cured within _____.	Planned sampling. (Inspection subsequent to scheduled contractor inspections.)	
Conduct water treatment	C.7.8.6	Treated water is non-scaling and non-corrosive.	6.5% A total of no more than 2 values outside the specified range for any one parameter of the finished water daily. No more than one value outside of the specified range per year for any one parameter tested periodically. All defects cured within _____.	Random sampling and analyses of both treated water monthly examination of records.	_____ %

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain storage facilities (water tanks)	C.7.8.6	Maintain integrity of water tank surfaces. All protective systems fully functional.	6.5% Water tank systems fully functional as measured by tank structures-to-water-potential. All corrective measures completed within 30 days of any testing or inspection showing a defect. Defects to tank coating or structural components completed within 90 days of any test or inspection showing a defect.	Random inspection of tanks/structures and protective systems	_____%

VII-144

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FORM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	TIME PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Operate wastewater treatment plant	C.7.9.1 C.7.9.4	Meet quality standards.	No defects.	100% inspection. (Inspections made daily at randomly selected times.)	
Inspect, maintain, & repair wastewater treatment plant.	C.1 C.7.9.1 C.7.9.5 Special clauses II-10 & II-2.	Accomplished per procedure IAW schedule.	6.5% Lot is _____. ATT defects cured within _____.	Planned sampling. (Inspections subsequent to scheduled contractor inspections.)	
Inspect, maintain, & repair wastewater collection system.	C.7.9.1 C.7.9.6 Special clause H.10 & H.2	Accomplish per procedure IAW schedule.	6.5% Lot is _____. ATT defects cured within _____.	Planned sampling. (Inspections subsequent to scheduled contractor inspections.)	

VII-145

Air-Conditioning & Refrigeration Plants

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect & maintain equipment.	C.7.10.1 C.7.10.2 & H.2	Accomplish per procedure in compliance with schedule. Air filters changed IAW schedule	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling. (QAE inspections subsequent to scheduled contractor inspections.)	_____ %
Perform emergency repair of equipment.	C.6.14 C.7.10.2 Special clause H.10	Accomplish per manufacturer's instructions. Respond within 1 hour & continue to work until problem is corrected.	No defects. Lot is number of emergency service calls per month.	100% Inspection.	
Perform urgent repair of equipment	C.6.14 C.7.10.3 Special clause H.10	Complete within 48 hours or work until problem is corrected.	6.5% Lot is number of urgent calls per month. All defects cured within _____.	Random sampling.	
Perform routine repair of equipment.	C.6.14 C.7.10.3 Special clause H.10	Complete within 30 days.	10%. Lot is number of routine calls per month. All defects cured within _____.	Random sampling.	

Air-Conditioning & Refrigeration Plants - 2

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Operations, seasonal start up and stop, cold storage plant defrost, filter changing, temperature recording on cold storage plants and critical areas, and cooling water treatment.	C.7.10	Meet all temperature requirements. Work schedule met. Operations meet time frames.	6.5% Lot is number _____ hours operational requirements. All defects cured within _____.	Random Sampling supplemented by validated complaints. Inspections made daily at randomly selected times.	_____ %
Maintain water treatment of cooling towers.	C.10.7.5	Maintain all cooling tower water test parameters within specified limits	6.5% A total of no more than 5 test values and no more than 2 values outside of specification for any one parameter per cooling tower per month. No scaling, corrosion or organic fouling permitted on any cooling tower surface. All defects cured within _____.	Random Inspection and testing. Monthly review of water treatment records.	_____ %

VII-147

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 715-15; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain water treatment of closed loop systems.	C.10.7.5	Maintain all closed loop water test parameters within specified ranges.	6.5% A total of no more than 5 test values and no more than 2 values outside of specification for any one parameter per closed loop system per month. No scaling, corrosion, or organic fouling permitted on any closed loop system surface. All defects cured within _____.	Random testing and inspection. Monthly review of water treatment records.	_____%

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform emergency repair work.	C.1 C.6.14 Special clause H.10 & H.2	Respond within 1 hour & continue until work completed. Meet requirements established in DA Pam 420-6, AR 420-17, & TM 5-600 series.	6.5% Lot is number of emergency service calls per month. All defects cured within _____.	100% Inspection.	_____%
Perform urgent repair work.	C.6.14 Special clause H.10 & H.2	Complete work within 48 hours. Meet requirements established in TM 5-600, DA Pam 420-6, & AR 420-17.	6.5% Lot is number of urgent service calls per month. All defects cured within _____.	Random sampling.	_____%
Perform routine repair work.	C.6.14 C.7.11.2 Special clause H.10 & H.2	Complete work within 30 days. Meet requirements in TM 5-600, DA Pam 420-6, & AR 420-17.	10%. Lot is number of routine service calls per month. All defects cured within _____.	Random sampling.	_____%
Perform preventive maintenance.	C.7.11.1 C.7.11.2 through 10	Meet requirements in TM 5-610 & AR 420-70.	6.5% Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling. (Secondary method Validated complaints.	_____%
Perform recurring facilities maintenance	C.7.11.2 through 10	Meet requirements in TM 5-600 & AR 420-17.	6.5% Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform recurring equipment maintenance	C.3 C.7.11.2 through 10	Meet requirements in AR 190-11, 420-41, 420-55, 420-83, 420-90, & TM 5-600 5-61, 5-680 & TM 38-750.	6.5% Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%
Perform painting.	C.7.11.7	Meet requirements in AR 420-70.	10%. Lot is number of painting orders per month. All defects cured within _____.	Random sampling. (Secondary method: Validated complaints)	_____%
Provide locksmith services.	C.7.11.8		6.5% Lot is number of orders per month. All defects cured within _____.	Random sampling.	_____%
Provide materials for troop construction projects.	C.7.11.10		6.5% Lot is number of items requested per month. All defects cured within _____.	Random sampling. (Secondary method: Validated complaints)	_____%

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect, maintain and repair roofing systems.	C.7.11.3	All deficiencies noted reported, and work scheduled for completion. All work completed within established time frames. Personnel inspecting have required training	6.5% Lot is number of roofing systems to be maintained per month. Specialized actions. All defects cured within _____.	Random sampling.	_____%

VII-151

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform emergency repair work.	C.6.14 Special clause H.10 & H.2	Respond within 1 hour & continue until work completed. Meet requirements in DA Pam 420-6, AR 420-17 & TM 5-600 series.	6.5% Lot is number of emergency service calls per month. All defects cured within _____.	100% Inspection.	_____%
Perform urgent repair work.	C.6.14 Special clause H.10 & H.2	Complete work within 48 hours. Meet requirements in DA Pam 420-6, AR 420-17, & TM 5-600 series.	6.5% Lot is number of urgent service calls per month. All defects cured within _____.	Random sampling.	_____%
Perform preventive maintenance.	C.7.11.1 C.7.11.2 through 10	Meet requirements in TM 5-610 & AR 420-70.	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling. (Secondary Method: Validated complaints)	_____%
Perform seasonal maintenance.	C.7.11.2 through 10	Meet specified requirements.	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling. (Secondary Method: Validated complaints)	_____%
Perform routine repair work.	C.6.14 Special clause H.10 & H.2	Complete work within 30 days. Meet requirements in DA Pam 420-6, AR 420-17, & TM 5-600 series.	10%. Lot is number of routine service calls per month. All defects cured within _____.	Random sampling.	_____%
Perform change of occupancy maintenance.		Perform work on time in accordance with AR 210-50. Occupancy rate meets established criteria.	10%. Lot is number of changes of occupancy per month. All defects cured within _____.	100% inspection.	_____%

VII-152

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform recurring exterior facilities maintenance.	C.7.11.2 through 10	Meet requirements in TM 5-600 & TM 5-800 series.	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%
Perform recurring equipment (appliance) maintenance.	C.7.11.2 through 10	Met requirements in ARs 190-11, 420-17, 420-41, 420-55, 420-83, 420-90, TM 5-600, 5-610, & 5-680	6.5% Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	_____%
Perform painting.	C.7.11.7	Meet requirements in AR 420-70.	10%. Lot is number of painting orders. All defects cured within _____.	Random sampling. (Secondary method: Validated complaints)	_____%
Provide quality floor refinishing & carpet cleaning.		Complete floor re-finishing within 3 workdays per unit. Meet requirements in ARs 420-70 & 210-50.	10%. Lot is number of requests scheduled. All defects cured within _____.	Random sampling. (Secondary method: Validated complaints)	_____%
Perform quality moving & handling of furnishings.		Perform work within 1 day of schedule. Meet requirements in AR 210-50.	6.5% Lot is number of QAE-approved requests for moving furnishings per month. All defects cured within _____.	Random sampling. (Secondary Method: Validated complaints)	_____%
Perform self-help program	C.7.15	Operate self-help store, issue authorized tools, schedule/conduct self-help classes.	10%. Lot is number of issues per month or classes per month. All defects cured within _____.	Random sampling.	_____%

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FAM 71B-16; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Grass cutting, improved grounds including POL stations & storage tanks, athletic & recreation areas, & family housing areas.	C.7.12.1 C.7.12.2	Height of grass shall not exceed a height of _____ inches or cut less than _____ inches exceeding seed head.	6.5% Lot is number of plots times number of days per month. All defects cured within _____.	Random sampling. (of plot-days)	_____ %
Grass cutting, semi-improved grounds including drainage ditches.	C.7.12.1 C.7.12.2	Height of grass shall not exceed a height of _____ inches or cut less than _____ inches	6.5% Lot is number of plots times number of days per month. All defects cured within _____.	Random sampling. (of plot-days)	_____ %
Grass cutting, vegetation control in unimproved areas.	C.7.12.1 C.7.12.2	Height of grass or vegetation shall not exceed a height of _____ inches or cut less than _____ inches.	6.5% Lot is number of plots. All defects cured within _____.	Random sampling. (Monthly during growing season)	_____ %
Grass trimming (includes edging of sidewalks & curbs).	C.7.12.1 C.7.12.2	Grass height will not exceed 1.5 times the maximum height of adjacent grass.	6.5% Lot is number of plot times number of days per month. All defects cured within _____.	Random sampling. (of plot-days)	_____ %

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PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 716-18; the proponent agency is DCSLOG.

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REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect for tree damage.	C.7.12.8	All damage documented & reported.	10%. Lot is number of trees found damaged. All defects cured within _____.	Random sampling.	_____ %
Turf repair.	C.7.12.1 C.7.12.3	Damaged areas & areas subject to erosion shall be repaired with ground cover or turf to conform to adjacent areas.	6.5% Lot is number of plots. All defects cured within _____.	100% inspection. (Monthly during growing season)	
Leaf & debris removal	C.7.12.1 C.7.12.4 C.7.12.6	Debris from storms, fallen leaves, etc. must be removed & disposed of. Leaves piled along street in family housing area must be disposed of. grounds free of trash & litter.	6.5% Lot is number of plots. All defects cured within _____.	100% inspection. (Monthly)	
Irrigation	C.7.12.1 C.7.12.7	Maintain ground moisture levels for proper growth of grass, ground cover, shrubs, & trees. Maintain underground sprinkler heads.	6.5% Lot is number of plots times number of days. All defects cured within _____.	Random sampling. (of plot days)	_____ %

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Pruning	C.7.12.1 C.7.12.8	Trees, National Arborist Association Standards. Shrubs, maintain natural growth characteristics.	10%. Lot is number of plots. All defects cured within _____.	Random sampling. (Monthly)	_____%
Trees & shrubs replacement	C.7.12.1 C.7.12.8	Tree & stump removal, use backfill & seed. Replacement, American Standards for Nursery Stock ANZ1-260.1.	6.5% Lot is number of trees, shrubs, & stumps scheduled for removal/replacement per month. All defects cured within _____.	Random sampling.	_____%
Fertilization	C.7.12.1 C.7.12.9	Lbs of Potassium, _____ lb of nitrogen, _____ lbs of phosphorus per acre will be applied at scheduled times. (Add line Reqts.)	6.5% Lot is number of plots scheduled. All defects cured within _____.	Random sampling.	_____%
Snow removal	C.7.12.1 C.7.12.11	Snow cleared from sidewalks adjacent to administrative buildings. Snow fences erected & maintained.	6.5% Lot is number of linear feet. All defects cured within _____.	Random sampling.	_____%
Special events (move viewing stands, police grounds, etc.).	C.7.12.1 C.7.12.17	Installation SOP & natural resources management plan.	No defects. Lot is number of requests per month.	100% inspection.	

VII-156

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain post cemeteries.	C.7.12.1 C.7.12.22	Grounds properly maintained. Graves properly dug, opened, closed, & marked.	6.5% Plot mowed. Lot is number of graves dug per month. All defects cured within _____.	100% Inspection.	
Maintain perimeter fencing.	C.7.12.1 C.7.12.23	Fence properly maintained.	6.5% Lot is number of feet of fencing.	Random sampling.	_____ %
Support natural resources conservation program.	C.7.12.1 C.7.12.12	Installation SOP & natural resources management plan.	6.5% Lot is number of requests per month.	Planned sampling.	

VII-157

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect, maintain & repair air-port surfaced areas (runways, taxiways, aprons pavement markings, runway lights, etc.).	C.7.13.1 C.7.13.2 through 21	TM 5-624, TM 5-822-8, TM 5-823-4. All deficiencies noted and reported. All work scheduled and performed within established time frames.	6.5% Lot is number of days per month. All defects cured within _____.	100% inspections. (Inspections made daily at randomly selected sites.	
Inspect, maintain, & repair paved surfaces (roads, parking areas, playing courts, tank crossings, etc.).	C.7.13.1 C.7.13.2 through 21	TM 5-624 All deficiencies noted, reported and scheduled for completion. Complete within established time frames.	6.5% Lot is square yards of pavement. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Inspect, maintain & repair earth-surface roads (unpaved roads, tank trails, firing ranges, etc.).	C.7.13.1 C.7.13.2 through 21	TM 5-624; roads passable & safe, shape of road permits good drainage.	6.5% Lot is number of miles of unpaved roads & tanks trails. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Inspect, maintain, & repair storm drainage & erosion control systems (road shoulders, drainage ditches, catch basins, storm sewers, drainage pipes, curbs, swales, dikes along road edge, headwalls, drainage around playing fields, ect.)	C.7.13.1 C.7.13.2 through 21	TM 5-624; no erosion. All deficiencies noted reported, and work scheduled on weekly/annual schedules. All work completed in established time frames.	10%. Lot is number of identified locations with actual or potential discharge problems. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Inspect, maintain & re- pair bridges	C.7.13.1 C.7.13.20	TM 5-624. All deficiencies noted/reported work completed as required.	No defects. Lot is number of bridges.	100% inspection.	

VII-159

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 716-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Remove ice & snow from airfields, roads, & parking areas (includes erection of snow fences & markers, supply of sand furnished in barrels, application of abrasives & chemicals, operating snow control center, etc.).	C.7.13.1 C.7.13.12	Ice & snow removed to bare pavement; culverts fire hydrants, & obstructions clearly marked; sand barrels filled. TM 5-624	10%. Lot is number of square yards of surfaced area. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Inspect, maintain, & repair traffic control signs.	C.7.13.1 C.7.13.10	TM 5-624. Traffic controls posted; signs repaired or replaced within 1 day of damage.	6.5% Lot is number of traffic control signs. All defects cured within _____.	Random sampling. (Secondary method: validated complaints)	_____ %
Perform emergency repair work (including clean-up of traffic accident debris).	C.6.14 C.7.13.1 C.7.13.10 Special clause H.10	Respond within 1 hour. Continue until emergency conditions corrected.	6.5% Lot is number of emergency calls per month.	100% Inspection.	

VII-160

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FAM 710-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform urgent repair work.	C.6.14 C.7.13.1 C.7.13.2 through 21 Special clause H.10	Complete within 48 hours. Problem is corrected.	6.5% Lot is number of urgent calls per month. All defects cured within _____.	Random sampling.	
Perform routine repair work.	C.6.14 C.7.13.1 C.7.13.2 through 21 Special clause H.10	Complete within 30 days. Problem is corrected.	10%. Lot is number of routine calls per month. All defects cured within _____.	Random sampling.	_____ %

VII-161

Railroad Facilities

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA FORM 718-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Conduct semi-annual rail facility inspection & prepare maintenance schedule.	C.7.14.1 C.7.14.2, through 21	TM 5-627	10%. Lot is number of maintenance actions in Government-approved schedule. All defects cured within _____.	100% inspection.	
Perform rail maintenance & repair actions identified in work schedule.	C.7.14.1 C.7.14.2, through 22	TM 5-627, FRA standards, Military specifications, AREA standards.	10%. Lot is number of maintenance actions scheduled per month. All defects cured within _____.	Random sampling. (QAE inspections subsequent to scheduled maintenance actions)	_____ %
Perform emergency repair work (including snow removal).	C.6.14 C.7.14.1 C.7.14.2, through 22 Special clause H.10	Respond within 1 hour. Continue until emergency conditions corrected.	6.5% Lot is number of emergency calls per month.	100% Inspection.	
Perform urgent repair work.	C.6.14 C.7.14.1 C.7.14.2, through 22 Special clause H.10	Complete within 48 hours. Problem corrected.	6.5% Lot is number of urgent calls per month. All defects cured within _____.	Random sampling.	
NOTE TO WRITER following C.7.4.1	See the	Draft Railroad Trackage Maintenance Standards ment	oned in note to wr	ter	

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 716-18; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Provide off-post listings.	C.7.15.5	Meet requirements of AR 210-51	10%. Lot is number of personnel processed. All defects cured within _____.	Random sampling.	_____ %
Perform continuous liaison with estate activity.	C.7.15.5	Meet requirements of AR 210-51	10%. Lot is number of listings available per month. All defects cured within _____.	Random sampling.	
Advise departing SM to contact HRO at next duty station.	C.7.15.5	Meet requirements of AR 210-51.	10%. Lot is number of departing SMs.	100% Inspection.	

VII-163

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 715-15; the proponent agency is DCSLOG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Perform Recurring Inspection	C.7.15.2.2	Meet 6-month requirements.	10%. Lot is number of scheduled inspections per 6-month. All defects cured within _____.	Random sampling.	
Perform Recurring Exterior Inspection.	C.7.15.2.2	Meet installation requirement.	10%. Lot is number of scheduled inspections per month. All defects cured within _____.	Random sampling.	
Perform Pretermination inspections.	C.7.15.2.2	Meet requirements of AR 210-50.	10%. Lot is number of scheduled inspections per month. All cured within _____.	100% prior to clearing quarters.	

VII-164

PERFORMANCE REQUIREMENTS SUMMARY

For use of this form, see DA PAM 715-15, the proponent agency is DCBLDG.

REQUIRED SERVICE	PARAGRAPH NUMBER	STANDARD	MAXIMUM ALLOWABLE DEGREE OF DEVIATION FROM REQUIREMENT (AQL)	METHOD OF SURVEILLANCE	THE PROPORTION OF REQUIRED SERVICE TO TOTAL CONTRACT PRICE
Maintain furnishings for family and unaccompanied personnel.	C.7.15.4 C.7.15.1	Meet requirements of AR 210-50 and AR 210-11.	10%. Lot is number of DU supported. All defects cured within _____.	Random sampling.	_____%
Maintain physical protection	C.7.15.1 C.7.15.4	Meet requirements of TM 743-200 and 743-200-1.	10%. Lot is number of buildings. All defects cured within _____.	100% Inspection.	

SECTION F

CONTRACT DELIVERY OR PERFORMANCE

1. Information:

a. This section is prepared by the DEH PWS writer IAW the FAR Part 12 and FAR 47.301-1. The requirements for time, place, and method of delivery or performance must be developed.

b. The time of delivery or performance is an essential contract element and shall be clearly stated in solicitations. Contracting Officers shall ensure that delivery or performance scheduled are realistic and meet the requirements of the acquisition. Schedules that are unreasonably tight or difficult of attainment (1) tend to restrict competition, (2) are inconsistent with small business policies, and (3) may result in higher contract prices.

2. Instructions:

a. Term of Contract: The contract shall be in full force and effect for a period of one (1) year, commencing (specify) or date of award, whichever is later, and ending (specify), plus any extension of contract term exercised IAW option clauses contained in the Contract Clauses, SECTION I and Special Contract Requirements, SECTION H.

b. Quality Control Program (QCP): The Contractor shall submit one (1) revised copy of his QCP to the Contracting Officer not later than (specify days) after award. (Ref: SECTION C, para. C.6.10).

(1) The Government will review and provide all/any comments to the revised copy of the QCP and return it to the Contractor not later than (specify days) before contract start date.

(2) The Contractor shall make all changes to the QCP or acceptable justification shall be provided as to reason(s) for rejecting the comments. The Contractor shall submit the final copy of the QCP to the Contracting Officer not later than (specify days) before contract start date.

(3) The Government will review and accept the final copy of the QCP if it meets the requirements.

(4) The Government accepted final copy of the QCP shall act as the baseline QC document from which all subsequent changes will be made. During the life of the contract, the Contractor shall monitor the QCP and update it, as necessary, and all changes shall be submitted to the Contracting Officer. The Contracting Officer will have 10 days for review and provide the Contractor an acceptance or non-acceptance to revise the QCP.

c. Deliverables: Except as specified or directed otherwise, the Contractor shall provide all deliverables, reports, etc., to the Contracting Officer. All plans, schedules, etc., must be reviewed and approved in writing by the Contracting Officer except as noted otherwise.

d. Legal Public Holidays:

New Year's Day, January 1
Martin Luther King Day, January 20
Washington's Birthday, 3rd Monday in February
Memorial Day, last Monday in May
Independence Day, July 4
Labor Day, 1st Monday in September
Columbus Day, 2nd Monday in October
Veterans Day, November 11
Thanksgiving Day, 4th Thursday in November
Christmas Day, December 25

SECTION G

CONTRACT ADMINISTRATION DATA

1. Information:

a. Accounting and appropriation data and any required contract administration information or instructions other than those on the solicitation form (Standard Form 33) should be include in SECTION G. Include any special invoicing instructions. If none, the Contracting Officer will include normal instructions.

b. Invoices: The Contractor shall submit an original and two copies of all invoices direct to the paying office shown in block 27, SF 33. One additional copy shall be submitted to the Contracting Office shown in block 7, SF 33 and (specify) copy(s) shall be submitted to the Contracting Officer. All invoices shall reflect the contract number, any applicable work order number, and any applicable delivery order number. The original vendor copy for any reimbursable parts or material invoices shall be attached to the copy provided to the Contracting Officer. Each invoice shall be certified by the Contractor as being true, complete, and accurate. Additionally, each invoice containing reimbursable parts or material items shall have attached, or reflect disposition of, all parts or materials, and any credits to the Government for excess parts or materials not used on the specific job or project as approved by the Contracting Officer. CAUTION: Failure by the Contractor to submit invoices as specified by DFARS 252.232-7000 may delay any payment due and shall be at the Contractor's own risk. Also, failure to provide each office with copies suitable for copying with a (specify type) copy machine may cause delay. Any delay, due to submission of incorrect invoices by the Contractor, shall be cause to adjust any period related to any discounts offered. The original copy, submitted to the paying office, shall govern computation of any discount period.

NOTE TO WRITER: Include any special invoicing instructions applicable to the installation. Where multiple paying offices are used, inform the Contracting Officer as to the correct paying office(s) who will make payment, or other appropriate payment data and includes complete addresses of each Finance and Accounting Office (F&AO). Discounts offered in service contracts are often lost due to failure to provide the paying office approved invoices in the discount time frame. The above provision will allow the paying office the means to monitor payments due and aid all offices to insure such discounts can be taken when appropriate. Writers and CORs should also be aware that Public Law 97-177 (S.1131) requires procurement contracts to contain specific payment deadlines and that bills be paid on time or pay a penalty (interest charge) computed as described in the Contract Disputes Act of 1978. Public Law 97-177 provides that, unless a different period is negotiated by the parties, payment will be due 30 days after receipt of the invoices. CAUTION: COR, QAE, etc., must be instructed not to approve invoices unless work has been accomplished satisfactorily. Failure to verify work is done prior to approving payment could result in the Contractor being paid for work either not done or unsatisfactory, with a further result that the COR or QAE who approves payment could be held liable. It is important that COR, QAE, etc., carefully document a Contractor's performance. AGSCA Decision No. 22784 (August 13, 1981) found that where absent a showing (lack of documentation) that the Government gives partial credit for satisfactory work, no deductions are allowed; i.e., evaluators who keep track of daily progress must give credit for work satisfactorily performed, even if only partial.

SECTION H

SPECIAL CONTRACT REQUIREMENTS

1. Information:

a. SECTION H is the responsibility of the Contracting Officer and wording is not within the purview of the PWS writer. However, the DEH PWS writer should recommend the following special contract requirements statements, as applicable, for this section. Consult the Contracting Officer prior to providing any recommendations for SECTION H.

b. Include a clear statement of any special contract requirements that are not included in SECTION I, "Contract Clauses," or in other sections of the UCF. Application of the DAVIS Bacon Act was prescribed in memorandums dated 19 September 1985, issued by acquisition and logistics of the Secretary of Defense and 1 October 1985 from SAIL-D/P&CA, Office of Assistant Secretary of the Army.

2. Instructions:

a. Option to Extend Contract Term: Contract options must be included for a total of five (5) years (e.g., not less than six (6) months for fiscal year awarded plus four (4) option years. (Ref. FAR 52.217-1 through 52.217-9, DFARS 252.217-7000 and Paragraph 4-11 a, AR 5-20)

b. Contractor Responsibility, Work Levels I, II, and III:

NOTE TO WRITER: All work should be firm fixed-price if adequate work history is available and performance work statements setting forth all work requirements can be written. Work Level III, defined as indefinite delivery, should not be used in such case.

(1) Level I: The Contractor shall perform all Level I work at the lump sum fixed-price (excluding parts and materials which will be reimbursed at actual cost).

(2) Level II: The Contractor shall perform all Level II work at the lump sum fixed-price established in the bid schedule. (All Level II parts and materials will be reimbursed at actual cost.) (Level II repair orders exceeding material costs established in 2b(1) above must be approved by the Contracting Officer in advance.) Contractor initiated Level II work shall be submitted to the work control desk for review, prior to any work being performed if time permits, to verify that the repair will not conflict with other ongoing projects, planning, or exceed

expenditure limits established by higher authority.

(3) Level III: The Contractor shall perform Level III work only after approval in writing by the Contracting Officer except as specified for emergency work. Labor hours will be negotiated, if applicable, based on job standards (EPS or MEANS) at the unit prices established in the bid schedule. Preliminary estimates shall be provided if requested. The Government reserves the right to have this work done by others. The Government will reimburse the Contractor for actual approved material cost. The approved material cost shall not be exceeded without approval of the Contracting Officer. Individual job orders classified as Work Level III that are a result of repair orders (Work Level II) that are beyond the work hours (and material costs) of Work Level II shall be reduced in cost by the Work Level II work hour, material cost limits.

NOTE TO WRITER: Delivery orders made against the indefinite delivery portion of the schedule under the contract can be made to any dollar amount within limitations established by the contract. As noted before, indefinite delivery requirements are established for known work which cannot be quantified as to extent or quantity. Once established by the schedule and competed, such requirements do not have to be recompeted as a new contract. If new minor construction work is to be included, it is recommended the dollar level of the commander's authority for minor construction be used. However, discuss this with the Contracting Officer as much of this type work is generally accomplished by separate contracts set aside for small business. However, small business set aside goals can be met by establishing requirements for the Contractor to set aside such work by a percentage or dollar factor.

c. Equitable Risk: When the Contractor estimates that costs of a job order (JOR), under any work level, will exceed the Contractor's responsibility or exceed established legal expenditure limits for a facility (e.g., AR 210-50) or for a project (e.g. AR 420-10; AR 415-35), the Contractor shall notify the Contracting Officer prior to performance of any work. Any work performed prior to such notification and subsequent approval of the Contracting Officer shall be at the Contractor's risk. Within five (5) workdays from time of notification to the Contracting Officer, the Contractor shall provide to the Contracting Officer a proposal to do the work. The proposal shall be complete, accurate, and include all costs broken out in comprehensive

detail IAW (MEANS) (EPS Standards). If deemed fair and reasonable, the Contracting Officer may issue a delivery order to perform the work. If not deemed fair and reasonable, and subsequent negotiation cannot reach mutual agreement, the Contracting Officer may compete the work. The Contractor will not be offered an opportunity to provide a new offer. If applicable, the work will be awarded to the most favorable offeror. In the event a price is obtained which is less than the Contractor's responsibility under contract, the cost for the work, plus (\$250), which represents the administrative cost to the Government to obtain a new contract, will be deducted from the Contractor's fixed-price portion of the contract. If the Contractor's proposal is lower, the work may be awarded to the Contractor. If awarded to the Contractor and it is later found that actual costs do not exceed the Contractor's responsibility, the delivery order will be canceled as the Contractor shall remain responsible within established limits. However, any work performed prior to notification to the Contracting Officer will be included in such determinations.

d. Government Estimates: The Contractor shall be responsible for and shall provide that any Government estimate(s) for reimbursable work ordered by delivery order (is) (are) not exceeded without prior written approval by the Contracting Officer. Exceeding any Government delivery order estimate without prior approval shall be at the Contractor's own risk. This clause shall apply only when final negotiations have not been completed and the Government orders the work based only on the Government's estimate.

e. Experience: The Contractor shall be responsible for and shall insure that no critical facility or utility equipment (plant type equipment) operation, Level II, or Level III work is performed by personnel with an experience level less than journeyman. However, personnel with lesser experience may serve as a helper. In all instances, for any work performed under contract, personnel who have an experience level below journeyman shall be under the immediate supervision of a person with an experience level at or above journeyman as appropriate to the occasion (i.e., the Contractor is responsible for and shall assure that a journeyman, foreman, master, etc., as appropriate, performs or supervises all required work). (If work by untrained personnel or apprentices is acceptable, reword.)

f. Work Certification: All one-time (or nonrecurring) work completed to a satisfactory level shall be signed by the initial requester, or by an official authorized to act for him. Satisfactory service level shall be verified by the Contractor and the initial requester by:

- (1) Testing or inspecting the completed work.
- (2) Trash, excess materials, equipment, etc., have

been removed from the work site.

- (3) All cleanup completed.

(4) All Level III work (delivery order, (DD Form 1155), or change order, as applicable) will be inspected by the Contracting Officer to insure all work tasks have been completed as originally approved by the Contracting Officer. Once the work is approved and accepted the Contractor shall complete and submit his invoice for payment.

g. Equitable Credit: When parts or materials ordered by the Contractor to complete any work under Level III services (delivery or change orders) and any parts or materials are excess to actual need for the specific order or change, such parts or materials shall be Contractor property. A monetary credit, reflecting the equitable value for the unused or excess parts or materials, shall be given by the Contractor to the Government. The original invoice(s) for purchase of the parts or materials shall be provided to the Government along with, and attached to, the Contractor's request for payment for the specific delivery or change order. In all such instances, each request for payment shall reflect the contract number, the delivery order number (or change order number), and any service order number. In addition, the request will indicate whether all parts or materials were used, or reflect the excess and the equitable credit given. Still further, the Contractor shall certify that the request for payment is complete, accurate, and payable. The Contractor is cautioned that all contract records are subject to audit and that inaccurate or false claims for payment could lead to charges of fraud against the Contractor.

h. Disaster Response Work: In the event that Government property or equipment is damaged by causes of disastrous nature such as tornado, flood, spills, leaks or release(s) of oil or hazardous/toxic materials and waste (these are spelled out in the installation spill contingency plan or spill prevention control and counter measures plan) or fire, and the Contracting Officer determines emergency action is necessary to protect Government property and equipment, the Contractor may be directed to do emergency work to the extent necessary to protect Government property and equipment. When disaster response work is directed and performed, the contract price shall be adjusted pursuant to the contract clauses, SECTION I entitled "CHANGES."

NOTE TO WRITER: Only a Contracting Officer can obligate Government funds. Emergency situations are not normally an exception. The installation should establish a 24-hour contact procedure to insure that a Contracting Officer with necessary authority is available to handle an emergency situation. Contact the pertinent Contracting Officer to determine and

establish the appropriate procedures.

i. Off-Duty Government Personnel: The Contractor shall not hire off-duty Contracting Officer Representatives (COR) or Quality Assurance Evaluators (QAE) nor any other person whose employment under the contract would, or appear to, result in a conflict of interest or violation of standards of conduct.

j. Government Right of Refusal: The Contractor and Contractor employees shall be subject to the same general rules of conduct while on the installation that apply to Government civilian employees. The Government reserves the right to refuse installation access to any Contractor employee if the Contracting Officer determines it to be in the best interest of the Government (Ref. AR 600-50).

k. Transition Period: A transition period of (specify) days during which Contractor management personnel may observe (Government)(incumbent Contractor) personnel in operation will be permitted immediately prior to commencement of work. This will allow for orderly turnover of facilities, equipment, and records and will enhance continuity of service. The Contractor shall permit any successor Contractor, or the Government, as applicable, to observe the Contractor in operation in a like manner (indicate number of days).

l. Payroll Data: The Contractor shall provide a copy of payroll data upon request of the Contracting Officer. As a minimum, the data shall reflect name of employee, job title, pay rate, dates and times worked under the contract, and reflect all considerations required by the general wage rate schedule. The data shall be furnished upon request not later than the third workday following the request. This information is required whenever any compliance checks are made by the Contracting Officer.

m. Approvals, and Procedures, for Construction Work:

(1) There are several labor laws applicable to Government contracts. These laws apply to a contract as a matter of law and the Government is not required to abrogate a contract due to failure to incorporate the labor clauses. Labor laws are designed to protect laborers, not a firm or business, and insure that the Contractor's employees are paid at a minimum the rates established by the Department of Labor in applicable wage rate schedules. Wage rate schedules do not establish a maximum and Contractors may pay more than the minimum but seldom do so. IAW acquisition regulations it is the Contracting Officer's responsibility to incorporate necessary clauses and wage rate schedules in solicitations and contracts to insure a Contractor complies. In event of noncompliance the Contracting Officer reports the noncompliance to the Department of Labor.

The Department of Labor then makes an investigation and determines any action to take against the Contractor. The Contracting Officer is required to implement the Department of Labor determinations of action to be taken. The cognizant technical official (e.g., DEH) aids the Contracting Officer and Department of Labor by providing information as to the type of in-house personnel who would perform work of a similar nature. This information is used to help develop wage rate schedules where adequate schedules do not exist. Contracting Officer Representatives (COR) may make compliance checks if authorized to do so by the Contracting Officer. Another area in which the technical official can aid Contracting Officers is to identify tasks which should apply to different labor laws (e.g., supplies, services, construction, transportation, communications, etc.). Including the information in solicitations and contracts help Contractors apply the laws correctly. Due to the many problems in this area, the DOD (I&L) and DA (SAIL-D/A & CA) developed guidance (see AR 5-20) to be used to help identify and separate services which should be covered under the Services Contract Act and construction which should be covered under the Davis Bacon Act.

(2) This clause applies to all delivery or change orders meeting the definition of construction as contained in FAR 36.102 and DFARS 236.102.

(3) Construction projects under delivery or change order shall be subject to the construction cost clauses of the contract, SECTION I.

(4) Minor construction project delivery or change orders may be subject to the Davis-Bacon and Copeland Acts. Delivery or change orders may include reference to these acts if applicable to the service to be performed. However, it is the Contractor's responsibility to determine and apply the correct classification to Contractor employees under the Davis-Bacon and/or Service Contract Acts, and to pay employees accordingly.

n. Completion of Work: All work started shall be completed, notwithstanding the completion or termination of contract term, except as otherwise stated in writing by the Contracting Officer. The following shall apply:

(1) All Level I or II work, except as specified in (2) or (3) below, shall be completed not later than 12 p.m. (midnight) on date of completion or termination of contract.

(2) Routine Level II nonrecurring repair work received by the Government during the last (specify) (hours)(days) of the contract term will be the Government's responsibility.

(3) All urgent or emergency Level I and II work

received by the Contractor prior to 12 p.m. (midnight) on last day of contract term shall be initiated and completed by the Contractor, at no additional cost to the Government.

(4) All Level III work received by the Contractor prior to 12 p.m. (midnight) on last day of contract term shall be completed IAW the delivery or change order; however, all such work shall be completed within 30 days of the end of contract term.

o. Option to Extend Services: In addition to other options available under the contract to extend the term of the contract, services described herein may be extended for a period of not less than one (1) month, nor more than three (3) months by the Contracting Officer's written notice to the Contractor no less than 30 days prior to expiration of the contract. This option is intended to protect the Government from disruption of mission essential service in event of unusual administrative problems or other extenuating circumstances. The rates set forth in the schedule shall apply to any extension made pursuant to the above option clause, except as provided in the contract clause entitled "Fair Labor Standards Act and Service Contract Act (Multiyear and Option Contracts)," as contained in the contract.

NOTE TO WRITER: The following paragraph should reference the contract clause entitled "Right of First Refusal for Employment," FAR 52.207-3 (Nov. 1991).

p. Contractor Employee Hiring:

(1) For purposes of this clause, displaced Government employees are those individuals whose jobs have been eliminated or who have suffered a grade reduction, a pay reduction, or a reassignment to another position as a result of the award of the contract. To be a displaced Government employee, an employee need not have been working in the function being contracted but nevertheless must be affected through exercise of "bumping" or "retreat" rights normally associated with reduction-in-force procedures or administrative termination procedures (e.g., termination of temporary employees).

(2) The Contractor shall give displaced Government employees the right of first refusal for employment openings under the contract in positions for which they are qualified. Affected Government employees must exercise their right of first refusal with the Contractor within 20 calendar days after being made an offer of employment by the Contractor, but, in any event, no later than 30 calendar days prior to commencement of contract performance. Any affected Government employee who, for a valid reason, is prevented from exercising his right of first refusal within the above required time limits shall have the right of first priority consideration for subsequent vacancies under the contract for which the employee

is qualified.

(3) The servicing Civilian Personnel Office (CPO) will furnish the Contractor, not later than 50 calendar days prior to commencement of contract performance, a list of all displaced Government employees to include qualification profile sheets. The Government will furnish the Contractor the necessary private facilities for conduct of interviews at times to be mutually agreed upon by the Contracting Officer and the Contractor.

(4) A displaced employee shall be deemed qualified for the current classification the employee possesses, or a lower level within that classification field. Considerations for skills listed on his/her qualification profile sheet outside the employee's current classification field may require demonstration by the employee of current proficiency.

(5) The Contractor shall maintain records of each interview and offers made to include rate of pay and fringe benefits and offers accepted or rejected, and will advise the servicing CPO accordingly. In addition, for displaced employees who received an interview but did not receive an offer, the Contractor shall specifically annotate each individual's referral (request for employment) file with reason for failure to make the displaced employee an offer of employment. The Contractor shall also annotate the file, in instances where a displaced employee does not receive an offer or accept employment, as to whether the displaced employee desires to be considered for any subsequent vacancies.

(6) The actions set forth above shall not modify or alter the Contractor's responsibilities required by statute or other contract clauses pertaining to hiring of minorities, veterans, and handicapped employees; conflict of interest standards; and dealing with, but not limited to, equal employment opportunities.

q. Contractor Personnel: The Contractor shall be responsible for selecting personnel who are well qualified to perform the required services, for supervising techniques used in their work, and for keeping them informed of all improvements, changes, and methods of operations. In addition:

(1) All personnel employed by the Contractor or any representatives of the Contractor entering the Government reservation shall conform to all security regulations which may be in effect during the contract period and shall be subject to such checks as may be deemed necessary to assure that no violations occur. No employee will be permitted on the premises (reservation) when such a check reveals that his presence would be detrimental to the physical or operational security of the installation.

(2) Where removal is due solely to misconduct or security on the part of the employee, replacement will be at the Contractor's expense and not chargeable to the Government. The Contractor shall take appropriate personnel action as required in event employees become involved with civilian or military authorities as a result of misconduct.

(3) The Government shall not exercise any supervision or control over Contractor employees performing services under the contract. Such Contractor employees shall be accountable solely to the Contractor, not the Government. The Contractor, in turn, shall be accountable to the Government for Contractor employees.

r. Regulations: The site of the contract work is on Federal property and all rules and regulations issued by the commander of (specify) or other appropriate commanders exercising authority covering fire, safety, sanitary, severe weather requirements, admission to installation, conduct of operations, etc., shall be observed by the Contractor and Contractor employees. The regulations include:

(1) Fire Prevention: The Contractor and Contractor employees shall be cognizant of, and observe, all requirements for handling and storing combustible supplies and materials, daily disposal of combustible waste, trash, etc., IAW National Fire Code and National Board of Fire Underwriters. The Contractor shall familiarize himself and require Contractor employees to become familiar with methods of activating a fire alarm.

(2) Safety: All rules of safety which are or may be imposed upon the Contractor by Federal, State, or local code, and the installation regulations shall be effectively carried out in the performance of the services set forth herein. The Contractor shall take proper safety and health precautions to protect the work, the employees, the public, and the property of others. Prior to start of work, the Contractor shall be required to discuss and develop mutual understanding relative to administration of the safety program.

(3) Police and Sanitation: The Contractor is responsible for and shall maintain all shops, buildings, structures, and areas used by the Contractor in performance of the contract, in a clean, neat, orderly, and sanitary condition conforming to US Army standards. All housekeeping supplies and related consumable tools shall be provided by the Contractor, at his expense. The premises shall be kept free from accumulation of waste material and rubbish resulting from work at all times. Combustible materials shall be removed daily.

(4) Vehicle Registration: All vehicles operated in support of the contract, including Contractor and Contractor's employees' privately owned vehicles or subcontractor vehicles, shall be registered, insured,

licensed, and safety inspected IAW applicable Federal, State, and local requirements.

s. Notice of Collective Bargaining Agreement Negotiations: In addition to the contract clause entitled "Notice to the Government of Labor Disputes," the Contractor shall notify the Contracting Officer (specify) days prior to start of any collective bargaining agreement negotiations.

t. Dissemination of Information: There shall be no dissemination of information, except in and between the Contractor and any subcontractors, by publication or otherwise, including photographs, films, public announcements, or denial or confirmation of same, information contained in reports, etc., without prior written approval of the Contracting Officer.

u. Representation: The Contractor shall not in any way represent that he is a part of the US Government or that he has the authority to contract or procure supplies on the credit of the United States of America.

v. Advertisements: Advertisements displayed on Contractor vehicles is permitted provided such advertisement is in conformance with good faith and public morality, and is so worded as not to imply Army or US Government approval or sanction of the advertised service and is not embarrassing or detrimental to the military or Federal Government. No advertisement of any type shall be displayed upon Government-furnished vehicles or property.

w. Government Performance of Services: If, for any reason, the Contractor fails to perform any service required by the contract, or should an emergency occur requiring performance beyond the Contractor's capability, the Government may, provided the Contracting Officer determines the mission of the Government is endangered or impaired, perform or supplement performance of such contract services with Government personnel or other means. Such performance shall not constitute a breach of contract by the Government. In addition:

(1) If the Government performs services because of the Contractor's failure to perform, the Contractor agrees that the Government may use and operate Contractor equipment or property as necessary to perform the function during a period not to exceed 120 days at the locations covered by the contract. The Government's right to use Contractor equipment or property, pursuant to this provision, shall cease in the event of termination of the

contract pursuant to (insert applicable clause or clauses from the FAR Subpart 52.249 and DFARS 52.249). During this period, Contractor equipment used by the Government will be maintained by the Government.

(2) The Government may be entitled to an equitable adjustment for the services performed by the Government IAW other provisions of the contract. Such performance and such adjustment shall not constitute a termination for convenience by the Government within the meaning of FAR 52.249-1.

x. Government/Contractor Relationships: The services required under the contract are nonpersonal services. No employer-employee relationship or master-servant relationship exists or will exist under the contract between the Government and the Contractor or between the Government's employees and Contractor's employees. It is in the best interest of the Government, therefore, that a complete and full understanding of respective obligations be set forth. In view of the above the following will be an agreement and understanding between all parties to the contract.

(1) Contractor personnel utilized under contract shall not:

(a) Be placed in a position where they are employed by a Federal office or are under the supervision, direction, or evaluation of a Federal officer, military, or civilian.

(b) Be placed in a position of command, supervision, administration, or control over DA military or civilian personnel, or personnel of any other Contractor, nor become a part of the Government organization.

(c) Be used in administration or supervision of military procurement (acquisition) activities.

(2) The Contractor or his employees shall not be required to exercise personal judgment and discretion on behalf of the Government; however, the Contractor's employees will act and exercise personal judgment and discretion on behalf of the Contractor.

(3) Rules, regulations, directives, and requirements issued by DA military command authorities under their responsibilities for good order, administration, and security are applicable to all personnel who enter the installation, or who travel in Government transportation. This shall not be construed or interpreted to establish any degree of Government control which is inconsistent with a nonpersonal service contract.

(4) The contract does not create an employer-

employee relationship. Entitlements and benefits applicable to such relationships do not apply. These include, but are not limited to:

(a) Payments under the contract are not subject to the Federal income tax withholding.

(b) Payments under the contract are not subject to Federal Insurance Contributions Act.

(c) The Contractor is not entitled to unemployment compensation benefits under the Social Security Act, as amended, by virtue of performance under the contract.

(d) The Contractor is not entitled to any workman's compensation benefits by virtue of the contract.

(e) The entire consideration and benefits to the Contractor for performance under the contract are contained in the provisions for payment under the contract.

y. Contract Review by Contractor Personnel: The Contractor shall insure that (a) copy(ies) of the contract, less pricing information, shall be made available for review, at an unrestricted location, by any Contractor employee, to include subcontractor employees, assigned to perform work under the contract. All such personnel shall be made aware of this location. In addition, each person assigned to perform under the contract shall receive a thorough briefing by the Contractor as to the standards of work to be achieved and maintained under the contract, and the personal conduct, regulations, and safety measures that must be observed while on the installation. This briefing shall be conducted prior to any performance by the employee under the contract and again at intervals of not less than each (specify) months thereafter during the contract term, to include any extension of contract term. The Contractor shall maintain a file of all such briefings. As a minimum, the file shall contain a summary of the briefing, date attended by the individual and signature of the individual stating that he attended the briefing and that he is fully aware of duties to be performed and standards to be achieved and maintained. This file shall be available for Contracting Officer review at the Contracting Officer's discretion. Disposition of this file at completion or termination of the contract shall be at the Contractor's discretion. This requirement is to insure that all personnel performing under the contract are fully knowledgeable as to their responsibilities, duties, standards of conduct, and standards of work to be achieved and maintained while on the Government installation. Any finding that any employee assigned to work under the contract is not fully aware of their duty, responsibility, and standards of work shall be unsatisfactory service. (A file will not be required for subcontractor personnel performing a service that is on a one-time, short-term basis: e.g., a job of short

duration and is of small dollar value (insert dollar value).

z. Required Insurance: The Contractor shall procure and maintain during the entire period of his performance under the contract the following minimum insurance.

<u>Type</u>	<u>Amount</u>
Comprehensive General Liability. Bodily Injury or Death:	\$500,000 per occurrence
Motor Vehicle Liability (for each motor vehicle) Bodily Injury or Death:	\$200,000 per person \$500,000 per occurrence
Property Damage:	\$20,000 per occurrence

Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate of written statement of the above required insurance. The policies evidencing the required insurance shall contain an endorsement to the effect that cancellation of any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than 30 days after written notice thereof to the Contracting Officer.

The Contractor agrees to insert the substance of this clause, including this paragraph, in all subcontracts hereunder.

SECTION I

CONTRACT CLAUSES

1. Information: The Contracting Officer shall include in this section the clauses required by law or by the FAR and any additional clauses expected to apply to any resulting contract, if these clauses are not required to be included in any other section of the uniform contract format. Clauses that are incorporated by reference shall be included in this section (see FAR 52.102-1).

2. Instructions: The Corps of Engineers (COE) Contracting Officers use "package sets of contract clauses"

(boilerplate) in their contracts. MACOM contract offices may or may not use this method. The writer should determine those which are normally included by the Contracting Officer and make recommendations as to any additional uniform contract clauses contained in the FAR or DOD, Army and MACOM FAR supplements which the DEH deems necessary for inclusion. As a minimum, the writer will recommend that the Contracting Officer include in contracts of \$100,000 or more, the "Incentive" clause and "Program Requirement" clause unless it is normal practice of the contracting office to include these clauses.

SECTION J

LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

1. Information:

a. The PWS writer should list all attachments. The list should include the titles, date and number of pages for each document, technical exhibit, and other attachment that make up the package. Workload (unknown quantity) data should be projected, based on historical data, for the base and all optional periods.

b. It is suggested that the PWS writer consolidate technical exhibits or attachments wherever possible in order to preclude overlapping of requirements. The Contracting Officer must insure that all potential Contractors fully understand all contract requirement. If DD 1423 is used, all other attachments must be identified as "attachments" or by other means rather than as exhibits. Attach all items listed in SECTION J to the package following SECTION M.

2. Instructions: The following is a suggested listing:

a. Installation Emergency Snow Plan: Where conditions remain fairly constant over the year, snow removal requirements should be a part of the firm fixed-price portion of the contract.

b. Contingency Plans: Use Government plans in conjunction with Contractor contingency plans.

c. Security Clearance Procedures: Include specific and detailed procedures to obtain security clearance.

d. Government-Furnished Facilities: Include building number, dimensions, type and space descriptions as a minimum. Include maps and floor plans.

e. Government-Furnished Vehicles/Equipment: Show as a minimum the average maintenance; stock no.; nomenclature; serial no.; quantity; condition and cost.

f. Government-Furnished Materials and Supplies: Include any Standard, DOD, DA, or other forms that will be provided or state where forms can be reviewed by potential offerors. The following forms should be considered:

Standard Forms:

Standard Form 364 - Report of Item Discrepancy (ROID)

DD Forms:

DD Form 200 - Report of Survey
DD Form 250 - Material Inspection and Receiving Report DD Form 813, 813-1, and 813-2 - (Report of Cost -- (1) Buildings, (2) Paving)
DD Form 1070 - Termite and Wood Decay Inspection
DD Form 1150 - Request for Issue and Turn-In
DD Form 1348, 1348-1, and 1348-6 (Requisition Forms)
DD Form 1423 - Contract Data Requirements List
DD Form 1532 and 1532-1 - Pest Control Summary Report
DD Form 1664 - Data Item Description

DA Forms:

DA Form 285 - Accident Report
DA Form 444 - Inventory Adjustment Report
DA Form 1687 - Notice of Delegation of Authority - Receipt for Supplies
DA Form 2062 - Hand Receipt/Annex No.
DA Form 2064 - Document Register for Supply Actions
DA Form 2407 - Work Request
DA Form 2408-9 - Equipment Control Record
DA Form 2702 - Bill of Materials
DA Form 2785-R, 2785-R-1, and 2785-R-2 - Installation Natural Resources Report
DA Form 2788-R - Facilities Engineering Technical Data
DA Form 3318 - Record of Demands - Title Insert
DA Form 3329 - Installation Property Record
DA Form 3644 - Monthly Abstract of Issues of Petroleum Products and Operating Supplies
DA Form 3718 - Reorder Card
DA Form 3829 - Fire Department Individual Run Report
DA Form 3857 - Commercial Deliveries of Bulk Petroleum Products Checklist
DA Form 3944 - Inventory Counting Slip
DA Form 3953 - Purchase Request and Commitment
DA Form 3985 - Fire Report
DA Form 4013 - Locator and Bin Card
DA Form 4283 - Facilities Engineering Work Request

DA Form 4284-R (Test) - Facilities Engineering Work Order
DA Form 4284-R (Test)-1 - Job Planning Worksheet
DA Form 4284-R (Test)-2 - Bill of Materials
DA Form 4287 - Service Order - XFN, XFP
DA Form 4288-R - Labor and Equipment Utilization
DA Form 4697 - Report of Survey
DA Form 4702-R - Monthly Bulk Petroleum Accounting Summary

Other Agency Forms:

EPA 8700-7
FHA 236
FHA 1312-R

g. Government-Furnished Publications: List as applicable.

h. Contractor-Furnished Property or Items: Listing minimum property or items is not recommended as the Contractor should be required to furnish all equipment or items necessary to provide the services. Establishing minimums can lead to disagreements and disputes which are difficult to resolve if not carefully written. The better method is to establish time frames for completion of work. The Government should "recommend" that specific items be included in the Contractor's stock, however, based upon past experience of usage.

i. Task and Frequency Code Index and Schedules: Include any special monthly, semiannual, or annual maintenance schedule not covered adequately in applicable publications. List dining facilities' hours of operations.

Alternative is to require the Contractor to determine frequency and work to established standards. Include minimum frequency schedules for custodial, trash removal, etc., to include accurate dimensions of spaces to be maintained, density of furniture, office equipment, trash containers, or any information needed to prepare a bid or offer. Also, ashes, edible garbage, etc., can be included under a single exhibit, or separate exhibits provided. Include any special pickup requirements needed.

j. Equipment Repair Limitations: Include an exhibit listing any repair limitations on equipment the Contractor will be maintaining. Most Government equipment has limits based upon expected life cycle.

k. Painting: Include an exhibit showing periodic scheduled painting requirements to include the building number and number of square feet.

l. Reliability Rates: Include for all critical systems or utilities operations.

NOTE TO WRITER: The reliability rate figure is the key to measuring Contractor performance. Insure that the percentages are derived with the total system in mind. Reliability rates can be used for individual system components or the entire system.

m. Historical Workloads: Historical workloads for unquantified requirements should be projected for all contract years and may be included in SECTION B or attached. Separate functional areas may be broken out.

SECTION K

REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENT OF OFFERORS

1. Information: The Contracting Officer is responsible for preparing SECTION K. Included in this section are those solicitation provisions that require representation, certifications, or the submission of other information by bidders.

2. Instructions: FAR Part 9 establishes minimum standards for Contractors. Those Contractors not meeting the standards cannot be awarded a contract. The PWS writer should recommend any special certification requirements required from a Contractor, if none, omit. A provision similar to the following paragraph is recommended.

Certification of Responsibility: The bidder/offeror hereby certifies per FAR 9.105 and DFARS 209.105 that he (does) (does not) meet minimum standards of responsibility under FAR 9.104-1 i.e., he has (a) adequate financial resources; (b) ability to comply with the performance schedule; (c) a satisfactory record of performance including quality; (d) a satisfactory record of integrity; (e) is otherwise qualified and eligible to receive an award under applicable laws and regulations; and (f) has the necessary organization, experience, operational control, technical skills, equipment, and facilities or existing commitments and arrangements to obtain them.

SECTION L

INSTRUCTION, CONDITIONS AND NOTICES TO OFFERORS OR QUOTERS

1. Information: The Contracting Officer is responsible for preparing SECTION L. This section will contain provisions and other information and instructions not required elsewhere to guide bidders. Provisions that are incorporated by reference shall be included in this section (see FAR 52.102). Invitations shall include the time and place for bid openings, and shall advise bidders that bids will be evaluated without discussions (see FAR 52.214-10).

2. Instructions: The writer should provide the Contracting Officer any recommendations for special instructions, conditions, and notices to offerors not required elsewhere which will affect preparation and submission of his offer.

a. Examples: The following are examples which should be brought to the offeror's specific attention:

(1) Directions for obtaining copies of any documents such as plans, drawings, and specifications that have been incorporated by reference.

(2) Any requirements for samples or descriptive literature.

(3) Instructions with respect to disposition of drawings and specifications supplied with the request for proposals or request for quotations.

(4) Statutory cost limitation, if any.

(5) A statement covering special technical capabilities that the offeror must possess.

(6) Preoffer conference dates, times, locations, etc.

(7) If a utilities contract is included, instructions to complete, sign, return with offer, etc.

(8) Instructions to submit technical proposals in severable parts to meet agency requirements to include:

(a) Separation of technical and cost or pricing data.

(b) Further organization of proposal or quotation parts.

b. Recruitment of Government Employees: Offerors may contact employees concerning employment IAW with the following:

(1) Notices of recruitment may be placed in the media, exclusive of Government publications. No direct contact with employees shall be made during employees' duty hours.

(2) Offerors will not be permitted to maintain recruitment offices on (specify) or its satellite activities or conduct recruitment activities, including telephone contact, interviews, hand circulars, or posting of notices on Government property.

(3) Employees' refusal of a firm job or offer prior to contract award does not relieve the successful Contractor from compliance with FAR 52.207-3, "Right of First Refusal for Employment."

c. Employment of Off-Duty Military Personnel by Government Contractors: Off-duty employment of military personnel by Government Contractors is generally permissible provided such employment does not contravene the policies set forth in paragraph 2-6a, AR 600-50, and provided further, that such employment does not involve the holding of a concurrent Federal civilian position nor result in the direct receipt of Federal compensation for work performed for a Government Contractor. AR 600-50 prohibits off-duty employment which interferes with or is not compatible with the performance of Government duties, or may reasonably be expected to bring discredit upon the Department of the Army, or is otherwise inconsistent with the requirement to avoid actions which create a conflict or the appearance of a conflict. Off-duty employment of military personnel by a Government Contractor normally will not involve the holding of a concurrent Federal civilian position or the direct receipt of Federal compensation. However, the facts of each case should be examined to insure that no "sham" or "subterfuge" is present which would, in effect, allow a soldier to occupy a Federal civilian position or receive direct Federal compensation. The same considerations generally apply with respect to off-duty employment of Government civilian employees by such Contractors.

d. Coordination of Site Visit: Arrangements have been made to escort potential Contractors through the site on (specify). Offerors who wish to make a visit shall contact (specify) and make advance arrangements to visit the site. Additionally, advance arrangements must be made to inspect

records and referenced data, which are too voluminous to incorporate herein. Government-furnished property should be inspected during this site visit.

e. Caution: Offerors are cautioned that when the word "approximate" is used in conjunction with measurements, quantities, dimensions, etc., it is the offerors' responsibility to verify any and all such items prior to submission of the offer. Offerors are also cautioned that any contract awarded is for all services necessary to operate, maintain, repair and construct the facilities covered by the contract IAW all contract terms and conditions. It is also the duty and responsibility of the successful Contractor to operate, manage, and conduct the required services in the most efficient and effective manner possible, yet meet or exceed minimal critical rates or standards. Offerors are cautioned that no claim for additional moneys will be entertained when such claims are based upon a contention that the contract fails to mention a specific item or component of an RPMA functional area covered by contract and the work is required in the normal course of operations. (For example, surfaced area maintenance and repair statements may not mention "culverts"; however, culverts are a normal component of roads, streets, or erosion controls on the installation and are shown on plots or maps provided to offerors. As culverts are a component part of the system, the Contractor is responsible for providing the maintenance and repair services within limitations specified elsewhere in the contract.)

f. Alternate Proposals: Offerors should be permitted to submit one or more alternate technical proposals in response to the solicitation, provided each proposal meets all requirements specified. If alternate proposals are permitted, each proposal should be clearly labeled and identified on the cover page of each separate document. Each proposal should be a complete offer in and of itself. In addition, each alternate proposal should contain detailed documentation explaining why it would be in the best interest of the Government to consider acceptance of the alternative offer. The contract type is negotiable. The solicitation should indicate a preference for fixed-price or a combination fixed price and requirements type, but should not rule out a cost plus type. Negotiation should determine that type which would be in the best interest of the Government to consider.

g. Notice of Policy Change: Offerors should be alerted to the fact that legislative or administrative restrictions on contracting for CA services could result in cancellation of the solicitation and no award of a contract. When utilizing an RFP to obtain offers, the writer should provide a requirement for SECTION L similar to the following:

(1) Proposal Content:

(a) The number of volumes to be submitted is left to the discretion of the offeror; however, no more than (specify) volumes shall be submitted. Regardless of number of volumes submitted, the following shall be separated in a manner that each may be separated for evaluation purposes:

Facilities Engineering
Supply
Equipment Pool
Housing
Management
Transition In (or Phase-In)
Transition Out (or Phase-Out)

(b) There are no specific page limitations as to size of proposals. Proposals should be as brief as possible, but consistent with complete submission. Proposals containing extraneous and irrelevant material will be viewed as a lack of understanding of the requirement on the part of the offeror.

(c) Proposals shall be logically organized. Discussion and statements of commitment shall be correlated with, and referenced to, the scope of work on a paragraph-by-paragraph basis.

(2) Transition In (Phase-In) Plan:

(a) Past Performance: Include record of past performance on jobs of comparable complexity.

(b) Understanding the Problem: Provide a matrix of all direct labor showing types, classification, and application of all personnel. Work which will be subcontracted shall be identified.

(c) Meeting Requirements: Indicate how performance and QC requirements will be met.

(d) Feasibility or Soundness of Approach: Support approaches with logical reasons for selection.

(e) Present a detailed plan for the transition (phase-in) period. Offerors shall stipulate in their plan how they propose to use this period to mobilize, train, observe, and otherwise prepare to assume complete operational and contract responsibility.

(f) Indicate the proposed initial manning, how it will be increased over the transition (phase-in) period, and when "full" manning levels will be provided. Specify transition (phase-in) time, functional area(s), and labor categories.

(g) Identify key personnel positions in the offerors

organized structure. Provide resumes and letters of commitment, as applicable, for all key positions.

(h) Describe the approach to development and dissemination of operational instructions, procedures, and control directives in preparation for assumption of all responsibilities.

(3) Management:

(a) Describe the entire organization and staffing to include diagrams which show management controls proposed.

(b) Explain how interface and coordination with the Contracting Officer and his representatives will be accomplished.

(4) Transition Out (Phase-Out) Plan:

(a) Present a detailed plan for the transition out (phase-out) period. Offerors shall stipulate in their plan how they propose to assist in the transfer of responsibility to another Contractor or the Government.

(b) Describe how Government-furnished property will be transferred.

h. Compensation Plan for Professional Employees:
This plan shall describe the corporate policy regarding salary and fringe benefits offered to professional employees to include salary increase policy and how professional employees will be obtained and retained.

NOTE TO WRITER: The successful Contractor's proposal shall be incorporated into any resulting contract by reference. The offeror's proposal shall set forth full, accurate, and complete information in response to all requirements of the RFP to include all attachments properly indexed to provide ease of location. This provision applies to any proposal amendments and clarifying information submitted by offerors.

SECTION M

EVALUATION FACTORS FOR AWARD

1. Information: The Contracting Officer is responsible for SECTION M. This section identifies the price related factors other than the bid price that will be considered in evaluating bids and awarding the contract (see FAR 14.201-8).

2. Instructions: The DEH writer should provide the following type of information:

a. Evaluation Factors:

(1) Factors other than price (including technical proposals or quotations requested), which will be given paramount consideration in the awarding of the contract, when an award is to be based upon technical and other factors. In addition to price or cost, the solicitation must clearly inform offerors of (1) the significant evaluation factors, and (2) the relative order of importance the Government attaches to price and all such other factors. Numerical weights, which may be employed in the evaluation of proposals, must not be disclosed in solicitations.

(2) Statements of information required to enable evaluation of technical and financial capabilities.

(3) Any information pertaining to evaluation and award when first article approval is involved (Ref. FAR Subpart 9.3 and DFARS 209.3).

(4) Identification of special factors, such as Government costs or other expenditures, including reliability and maintainability requirements, which must be considered in the evaluation of proposals or quotations.

NOTE TO WRITER: Unsatisfactory Contractor performance can often be precluded by a proper technical evaluation.

b. Financial and Technical Ability:

(1) If an offer submitted in response to this solicitation is favorably considered, a preaward survey will be conducted to determine the offeror's ability to perform. It will be conducted by (insert the appropriate office - normally DCAS for Army) who will contact you to determine your capability to perform. Current financial statements and pertinent data should be available at that time. Award will be withheld until a satisfactory report is provided. An unsatisfactory report shall be cause for rejection of award.

(2) At the time the preaward survey is conducted, you will be requested to have management officials, of the appropriate level, represent your firm. In addition, your proposed project manager should be available to respond to questions raised during the preaward survey. You should also be prepared to present a briefing regarding the manner in which you intend to accomplish your contractual obligations. As a minimum, you should address the following items of information in your presentation. A written copy of the presentation, along with the backup data listed below, must be submitted to the Contracting Officer five (5) workdays before the presentation.

- (a) Startup and phase-in schedule.
- (b) Key personnel letters of intent and resumes.
- (c) Availability of labor force, plan for recruiting, type and extent of training.
- (d) The role of the project manager and the extent of his authority.
- (e) Organizational and functional charts reflecting line of management responsibility. (A management SOP would be a valuable aid in determining a Contractor's responsibility).
- (f) Manning charts in the format requested by the Contracting Officer (to be used only to assure that you understand the workload).
- (g) Plans and management procedures for logistical administrative support of all functions; i.e., Contractor-furnished supplies and equipment and procedures for timely payment of personnel.
- (h) Procedures to be used to insure contract requirements are met (Quality Control Program).
- (i) Corporate experience, as evidenced by past and present contracts.
- (j) Other purchases for which you have bid and for which you are the apparent low bidder.
- (k) Any plans/intentions, etc., for subcontracting, to include firm names, addresses, etc. All subcontractors to be used for performing services on the installation must be

acceptable to the Government and approved in writing by the Contracting Officer, prior to any performance being performed by such subcontractors. Offerors should take special note of all contract clauses or provisions regarding subcontractors.

c. Professional Employee Compensation: FAR Subpart 22.11 "Professional Employee Compensation" describes evaluation provisions to be inserted in a solicitation for negotiated service contracts when the contract amount is expected to exceed \$250,000 and the service to be provided will require meaningful numbers of professional employees. These provisions require that offerors submit for evaluation a total compensation plan setting forth proposed salaries and fringe benefits for professional employees working on the contract. If appropriate, inform your Contracting Officer in order to insure the Contracting Officer is aware and inserts the applicable provisions in FAR 52.222-45 and 52.222-46.

d. Award Factors: The following is an example of award factors that could be recommended. Wording will depend upon contract type and method of advertisement.

(1) General: All proposals will be evaluated in three (3) general areas: Technical (including management), Experience, and Cost. Technical is as important as Experience and Cost combined, with Experience being (specify) times as important as Cost.

(2) Technical: The technical area will be evaluated in terms of the following factors and subfactors. Each factor listed is approximately of (equal) importance. Within each factor, subfactors are approximately of (equal) importance.

(3) Organization and Management:

(a) Completeness of the proposed organization, its apparent capability of providing management control, internal audit, and compliance with all performance requirements. Within this subfactor will be considered corporate structure, subcontractor or joint venture relationship, degree of autonomy of various organizational elements, established lines of support, and capability of organization for responsiveness and responsibility. An integrated assessment will be made of the proposed organization effectiveness in performing the project IAW standards (state where found or specify).

(b) Proposed operational procedures and overall approach to the work. This subfactor will consider the efficiency of the procedures in satisfying the service requirements IAW standards (state where found or specify) in all functional areas.

(4) Mobilization Plan:

(a) One of (installation name/title/etc.) major objectives is to transfer work and services, if applicable, and start full contract operations by the Contractor as rapidly as is reasonably possible. Therefore, mobilization plans must demonstrate a capability to meet the contract commencement dates and initiate all services as reflected in the solicitation.

(b) Adequacy of organization and staffing to conduct preliminary acceptance as described in (specify where found).

(5) Overall Quality of Proposal:

(a) Recognition of critical performance or problem areas and appropriate emphasis and sound solutions for these critical areas.

(b) Responsiveness to special contract requirements; i.e., standard inspection requirements acceptable to the Government.

(c) Degree to which resumes/job descriptions satisfy qualitative requirements of the project.

(6) Experience: Offerors shall include in their technical proposals any comparable work performed or comparable work now being performed, to include subcontractors, describing location(s), dates of performance, contract numbers, and contracting agency, with a detailed description of the similarity to the requirements under this solicitation, to include related experience. Each factor listed below is approximately of equal importance:

(a) Operation of RPMA facilities IAW (Government) (commercial) standards.

(b) Satisfactory operation of comparable RPMA facilities; considered within this factor will be experience both in operating facilities similar in size and complexity and operating facilities in the (specify) or similar (specify) areas.

(7) Cost: There is no requirement that the contract (contract type) be awarded on the basis of either the lowest proposed cost, the lowest proposed fee, or the lowest total estimated (insert contract type, plus fees). The primary consideration in the cost evaluation will be which offeror can perform the contract in a manner most advantageous to the Government. The primary objectives will be to determine:

(a) The degree to which cost is representative of probable actual cost to perform. The cost evaluation will consider overall costs to the Government, to include all direct or

indirect costs necessary to the total performance, and accomplishment of the contract objectives and statements of work. Costs will also be evaluated against level of professionalism (or expertise) required to perform work of each functional area.

(b) Adequacy of accounting procedures.

(c) Record of cost control and adequacy of financial management on current and previous Government contracts, particularly the maintenance of a favorable balance of fund expenditures within contract cost estimates, including existing or planned cost reduction programs or activities.

(d) Financial ability of offeror to perform.

(8) Basis of Award: Award of contract as a result of this RFP shall be made on the overall assessment of criteria designed to determine which proposal offers the best prospect for meeting the Government's requirements. The source selection decisions will take into account the offeror's capability to define and develop an operational plan to meet the requirements of the RFP. Award will not necessarily be made to the low offeror.